

# **APPENDIX B**

*Air Quality Technical Report*



**Air Quality Technical Report  
for the  
North City Project  
City of San Diego, California  
PTS#499621**

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## ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AADF	annual average daily flow
AAQS	ambient air quality standards
AB	Assembly Bill
ADMRT	<u>Air Dispersion Modeling and Risk Tool</u>
APCD	Air Pollution Control District
AQMD	Air Quality Management District
ATCM	Airborne Toxic Control Measure
AWPF	Advanced Water Purification Facility
BAC	biological activated carbon
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
City	City of San Diego
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
DPM	diesel particulate matter
EIR	environmental impact report
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gas
HARP2	Hotspots Analysis and Reporting Program Version 2
HDPE	high-density polyethylene
HP	horsepower
HRA	Health Risk Assessment
I-	Interstate
ICE	internal combustion engine
lb/d	pounds per day
IPCC	Intergovernmental Panel on Climate Change
IRAT	In-Reservoir Alternative Terminus
LFG	landfill gas
LFG Pipeline	Landfill Gas Pipeline
LOS	level of service
MAT	Marina Alternative Terminus
MBC	Metro Biosolids Center
MCAS	Marine Corps Air Station
MEIR	<u>Maximally Exposed Individual Resident</u>
MF	membrane filtration
MGD	million gallons per day

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Acronym/Abbreviation	Definition
MTBS	Mission Trails Booster Station
MTS	Metropolitan Transit System
MW	megawatt
NAAQS	National Ambient Air Quality Standards
NCPWF	North City Pure Water Facility
NCWRP	North City Water Reclamation Plant
North City Pipeline	North City Pure Water Pipeline
NEPA	National Environmental Policy Act
NO <sub>2</sub>	nitrogen dioxide
N <sub>2</sub> O	nitrous oxide
NO <sub>x</sub>	oxides of nitrogen
O <sub>3</sub>	ozone
O&M	operations and maintenance
Pb	lead
PM <sub>2.5</sub>	fine particulate matter
PM <sub>10</sub>	coarse particulate matter
ppm	parts per million
Project	North City Project
PWF	Pure Water Facility
RAQS	Regional Air Quality Strategy
REL	<u>reference exposure level</u>
RO	reverse osmosis
ROW	right-of-way
RS	reinforced steel
SANDAG	San Diego Association of Governments
San Vicente Pipeline	San Vicente Pure Water Pipeline
SB	Senate Bill
SDAB	South Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas & Electric
SIP	State Implementation Plan
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
SPPF	Small Power Producing Facility
SR-	State Route
TAC	toxic air contaminant
TAT	Tunnel Alternative Terminus
TSS	total suspended solid
UV/AOP	ultraviolet/advanced oxidation process
VOC	volatile organic compound
WRP	Water Reclamation Plant
WTP	Water Treatment Plant
WWTP	wastewater treatment plant

# Air Quality Technical Report for the North City Project

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## SUMMARY

The North City Project (Project) is a City of San Diego Public Utilities Department plan to produce 30 million gallons per day (MGD) of potable recycled water. The North City Project will expand the existing North City Water Reclamation Plant (NCWRP) and construct an adjacent North City Pure Water Facility (NCPWF). Two alternative purified water pipelines are considered: one to Miramar Reservoir and one to San Vicente Reservoir. Other project components include a new pump station and forcemain to deliver additional wastewater to the NCWRP; a brine discharge pipeline; upgrades to the existing Metro Biosolids Center (MBC); a new renewable energy facility at NCWRP; and a new Landfill Gas (LFG) Pipeline between the Miramar Landfill gas collection system and the NCWRP.

Two Project Alternatives are proposed. The Miramar Reservoir Alternative would construct the NCPWF and would pipe purified water to Miramar Reservoir. The San Vicente Reservoir Alternative would construct the NCPWF, but would include fewer treatment processes and would pipe purified water to the San Vicente Reservoir rather than the Miramar Reservoir. The San Vicente Reservoir Alternative would also include an additional pump station, the Mission Trails Booster Station (MTBS), along the San Vicente Pure Water Pipeline (San Vicente Pipeline). The Miramar Reservoir Alternative would include improvements at the Miramar Water Treatment Plant (WTP).

The air quality impact analysis provides an evaluation of the potential for significant adverse impacts to the ambient air quality due to construction and operational emissions resulting from the Project. Construction of the proposed facilities would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. The analysis concludes that the daily construction emissions would exceed the City of San Diego's significance thresholds for NO<sub>x</sub>. Construction emissions would not exceed thresholds for all other criteria pollutants. Mitigation is provided which would reduce impacts related to NO<sub>x</sub> to a **less than significant** level for the Miramar Reservoir Alternative. With mitigation, the San Vicente Reservoir Alternative construction emissions would still exceed the daily threshold for NO<sub>x</sub> and would result in a **significant and unavoidable impact**.

Operational emissions were also found to be below the City's significance thresholds for both Project Alternatives; therefore, impacts during Project operation would be **less than significant**. Additionally, impacts to sensitive receptors during temporary construction activities and operation of the Project Alternatives were determined to be **less than significant**. The health risk assessment performed for Project operation resulted in **less-than-significant** impacts from toxic air contaminants. Lastly, odor impacts would be reduced with implementation of odor abatement measures as part of project design should facilities be determined to generate nuisance odors near sensitive receptors. Impacts would be **less than significant** with mitigation incorporated for both Project Alternatives.

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## 1 INTRODUCTION

The North City Project (Project) would use advanced water purification technology to produce potable water from recycled water and provide a safe, reliable, and cost-effective drinking water supply for San Diego. The North City Project consists of the design and construction of a new North City Pure Water Facility (NCPWF), upgrades to existing water reclamation facilities, and design and construction of new pump stations and pipelines. The North City Project would construct the NCPWF adjacent to the existing North City Water Reclamation Plant (NCWRP). Upgrades would occur at the existing NCWRP in order to provide sufficient tertiary influent for the NCPWF. Pump station and pipeline facilities would convey different types of flows to and from the treatment facilities for: (1) diverting wastewater flows to NCWRP, (2) conveying recycled water to the NCPWF, (3) conveying purified water from the NCPWF to a reservoir, and (4) transporting waste flows (brine and sludge) from treatment processes to solids handling facilities or back into the Metro Sewer System. Upgrades would also occur at the Metro Biosolids Center (MBC) to handle the additional brine and sludge produced by the NCWRP expansion and advanced water purification process. A new renewable energy facility would be constructed at NCWRP, which would receive landfill gas from the City's Miramar Landfill.

From the NCPWF, purified water would be piped to either the Miramar Reservoir or San Vicente Reservoir via a purified water pipeline.

The North City Project would create up to 30 million gallons per day (MGD) of locally controlled potable water and reduce flows to the Point Loma Wastewater Treatment Plant (Point Loma WWTP), which in turn would reduce total suspended solids (TSS) discharged to the ocean.

### 1.1 Purpose

The purpose of this report is to estimate and evaluate the potential air quality impacts associated with implementation of the Project relative to the City of San Diego's California Environmental Quality Act Significance Determination Thresholds (City of San Diego 2016) and for compliance with applicable state and federal rules and regulations.

### 1.2 Project Location

The North City Project includes a variety of facilities located throughout the central coastal areas of San Diego County. An overview of the overall Project system is shown on Figures 1 and 2. Figures 3 and 4 show the location of proposed facilities and pipelines for the Miramar Reservoir Alternative and San Vicente Alternative. A new pure water facility and three pump stations would be located within the corporate boundaries of the City of San Diego (City). Proposed pipelines would traverse a number of local jurisdictions, including the cities of San Diego and

# Air Quality Technical Report for the North City Project

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Santee, and the community of Lakeside and other areas of unincorporated San Diego County, in addition to federal lands within Marine Corps Air Station (MCAS) Miramar.

## 1.3 Project Description

The North City Project would use advanced water purification technology to produce purified water from recycled water and provide a safe, reliable, and cost-effective drinking water supply for San Diego. From the NCPWF, purified water would be piped to a reservoir, where it would blend with impounded water and imported supplies. The water would then receive further treatment at a potable water treatment plant before being distributed as potable water.

The North City Project would create up to 30 MGD of locally controlled potable water and reduce flows to the Point Loma WWTP, which in turn would reduce TSS discharged to the ocean. The North City Project would construct facilities that have the ability to produce at least 30 MGD by 2021.

There are two North City Project Alternatives (Project Alternatives) proposed. The Miramar Reservoir Alternative would construct the NCPWF and would convey purified water to Miramar Reservoir. The San Vicente Reservoir Alternative would also construct the NCPWF, but would include fewer treatment processes and would pipe purified water to the San Vicente Reservoir rather than the Miramar Reservoir. The San Vicente Reservoir Alternative would also include an additional pump station, the Mission Trails Booster Station (MTBS), along the San Vicente Pure Water Pipeline (San Vicente Pipeline). The Miramar Reservoir Alternative would include improvements at the Miramar Water Treatment Plant (WTP) (see Figure 3 for a map of facilities for the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative). Table 1.3-1 shows a comprehensive list of all components associated with the North City Project and which components are associated with each Project Alternative. The two Project Alternatives are discussed in more detail below.

**Table 1.3-1  
North City Project Components**

Segment	Miramar Reservoir Alternative	San Vicente Reservoir Alternative
Morena Pump Station, Wastewater Force Main, and Brine/Centrates Line (Morena Pump Station and Pipelines)	X	X
North City Water Reclamation Plant (NCWRP) Expansion	X	X
North City Pure Water Facility (NCPWF) Influent Pump Station	X	X
NCPWF	X	X
North City Pump Station	X	X
North City Pure Water Pipeline (North City Pipeline)	X	
San Vicente Pure Water Pipeline (San Vicente Pipeline)		X

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**Table 1.3-1  
North City Project Components**

Segment	Miramar Reservoir Alternative	San Vicente Reservoir Alternative
Mission Trails Booster Station (MTBS)		X
Metro Biosolids Center (MBC) Improvements	X	X
Miramar Water Treatment Plant (WTP) Improvements	X	
North City Renewable Energy Facility	X	X
Landfill Gas (LFG) Pipeline	X	X
Pure Water Dechlorination Facility (Dechlorination Facility)	X	

### 1.3.1 Miramar Reservoir Alternative

The Miramar Reservoir Alternative includes (1) a new pump station at Morena Boulevard, a wastewater forcemain, and brine/centrate pipeline (Morena Pump Station and Pipelines); (2) expansion of the existing NCWRP; (3) construction of a new influent pump station at NCWRP and conveyance pipeline between NCWRP and the NCPWF; (4) construction of the new NCPWF; (5) construction of a new North City Pump Station; (6) construction of a new North City Pure Water Pipeline (North City Pipeline); (7) construction of a new renewable energy facility at NCWRP; (8) a new Landfill Gas (LFG) Pipeline between the Miramar Landfill gas collection system and the NCWRP; (9) upgrades at the MBC; and (10) improvements at the Miramar WTP.

Figure 3 provides an overview of the Miramar Reservoir Alternative.

The Miramar Reservoir Alternative facilities and components are described in detail below.

#### **Morena Pump Station and Pipelines**

In order to utilize the proposed expanded capacity of the NCWRP, approximately 32 MGD annual average daily flow (AADF) of additional wastewater flows that would normally be conveyed to the Point Loma WWTP would need to be diverted to the NCWRP. The Morena Pump Station and wastewater forcemain are proposed to deliver maximum flow of 37.7 MGD of raw wastewater to the NCWRP, expanding the NCWRP's production capacity from 30 MGD to 52 MGD in dry weather conditions. Wastewater will be conveyed to the Morena Pump Station by connections with four existing sanitary sewer trunk sewers: the 78-inch North Mission Valley Interceptor, the 72-inch Morena Boulevard Interceptor No. 14, the 33-inch Morena Boulevard Trunk Sewer No. 11, and the 60-inch East Mission Bay Trunk Sewer No. 4.

## **Air Quality Technical Report for the North City Project**

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The proposed Morena Pump Station is to be located on a parcel currently owned by the San Diego Humane Society and the Society for the Prevention of Cruelty to Animals. The site is approximately 1 acre and is near the intersection of Sherman Street and Custer Street. The proposed Morena Pump Station would consist of (1) a junction structure and intake screening facility – flow separator and screening structures, (2) a pump station building, (3) odor control and chemical storage, (4) an energy dissipater for the 30-inch brine/centrate line, (5) a transformer, (6) an electrical and motor control center building, and (7) a diversion structure.

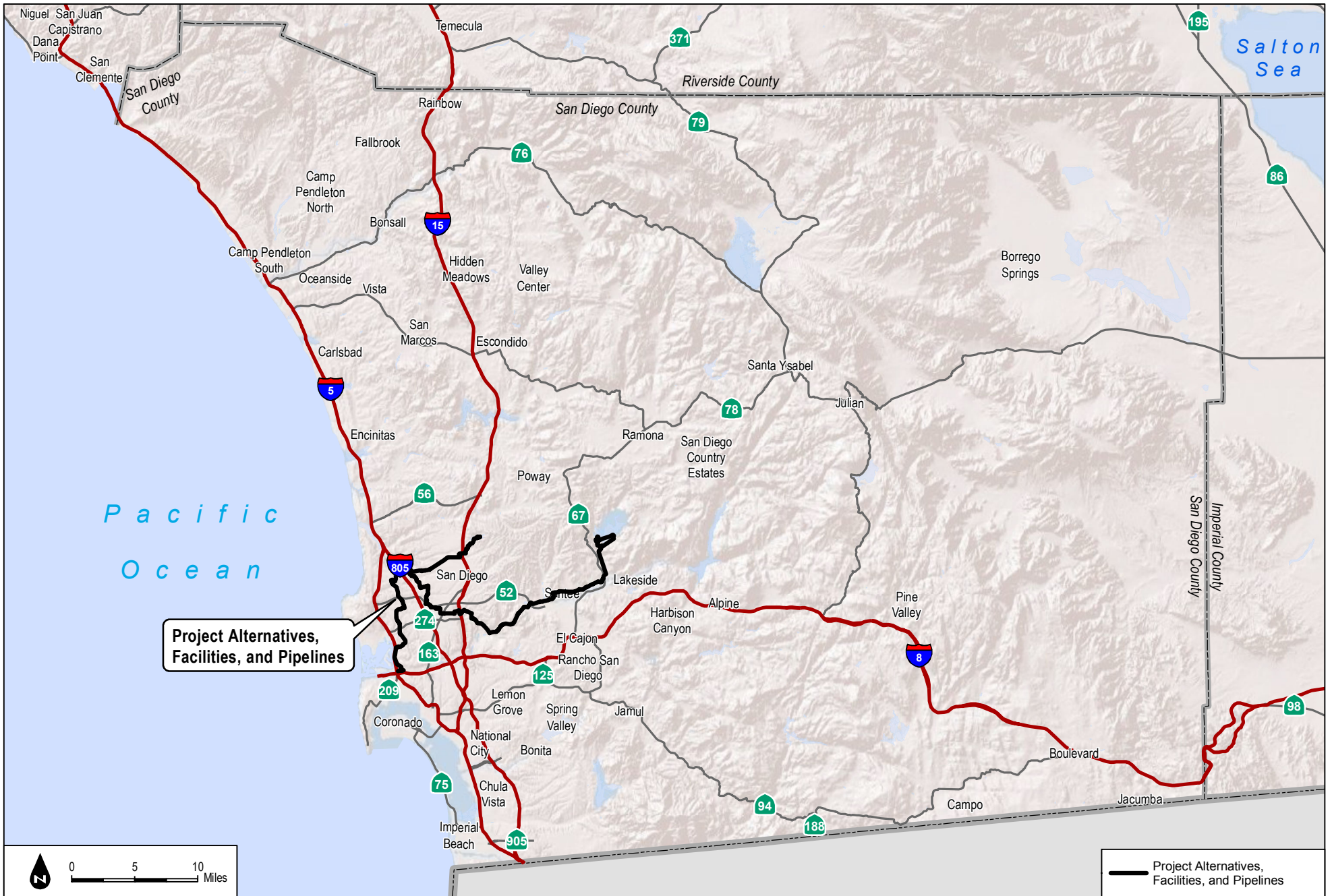
The pump station will be an approximately 92-foot-long by 66-foot-wide, reinforced, cast-in-place concrete structure. The finished floor of the pump room and wet well will be approximately 52 feet below grade. Due to the location of the pump station, an additional depth of 6 to 10 feet may be required for sub-grade stabilization below the groundwater level. The top slab will extend above finish grade approximately 1 foot, 6 inches at the ridge and taper down to 1 foot, 3 inches at the edges. It is anticipated that the cast-in-place walls will be approximately 4 feet thick and include external buttresses for lateral soil support.

Off-site infrastructure of the pump station facility, excluding the Morena Wastewater Forcemain and Brine/Centrate Line (Morena Pipelines), consists of a storm drainage line, pump station inflow piping, overflow piping, and associated subgrade diversion structures. Diversion structure No. 1 will be approximately 14 feet long by 12 feet wide; diversion structure No. 2 will be approximately 18 feet long by 10 feet wide. Flow control gates will be installed at each diversion structure for flow management into the pump station.

The Morena Pump Station would convey new wastewater approximately 11 miles through a new 48-inch-diameter wastewater forcemain to the existing NCWRP. The wastewater forcemain will connect to the existing 60-inch-diameter reinforced steel (RS) line prior to entering the existing headworks building at NCWRP.

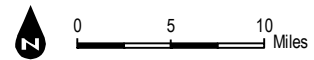
Approximately 6 MGD AADF of brine (produced as a by-product of the advanced water purification treatment process) and 6 MGD AADF of centrate (product remaining after centrifugation at MBC) will be conveyed via a new 30-inch-diameter gravity flow line from the new NCPWF back to Morena Pump Station, and then to a sanitary sewer located in Friars Road where it will ultimately flow to the Point Loma WWTP. The brine/centrate line will combine with the 60-inch diameter overflow sewer and would discharge downstream of the diversion structures back to the Mission Valley Interceptor with sufficient distance as to not recirculate brine flows into the screening facility of the pump station.





**Project Alternatives,  
Facilities, and Pipelines**

— Project Alternatives,  
Facilities, and Pipelines



SOURCE: City San Diego 2016; ESRI 2016

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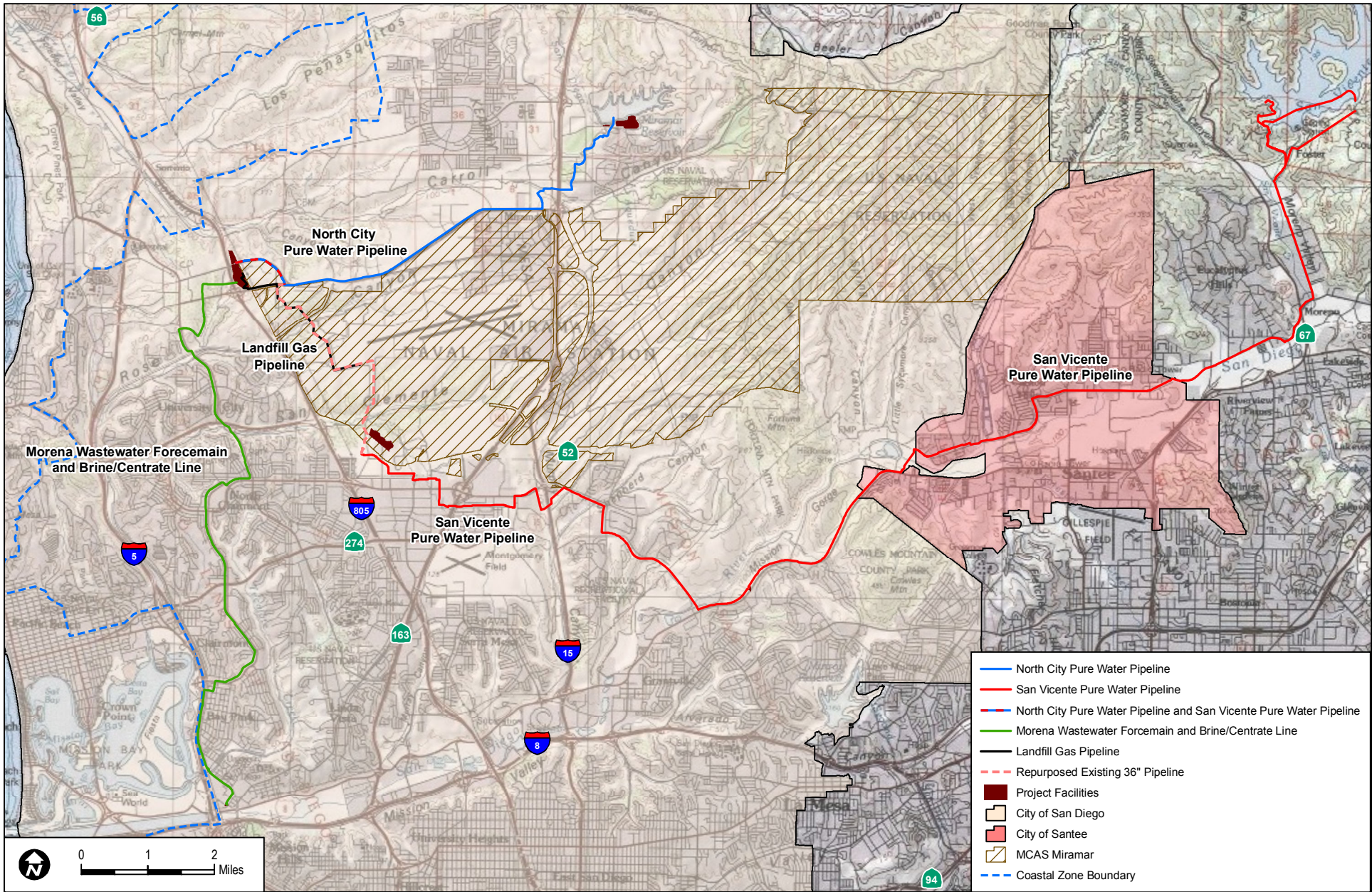
Pure Water San Diego Program North City Project Air Quality Technical Report

**FIGURE 1**  
**Regional Map**

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SOURCE: USGS 7.5-Minute Series Del Mar, Poway, San Vicente Reservoir, La Jolla, La Mesa, El Cajon Quadrangles; City of San Diego 2016; CA Coastal Commission

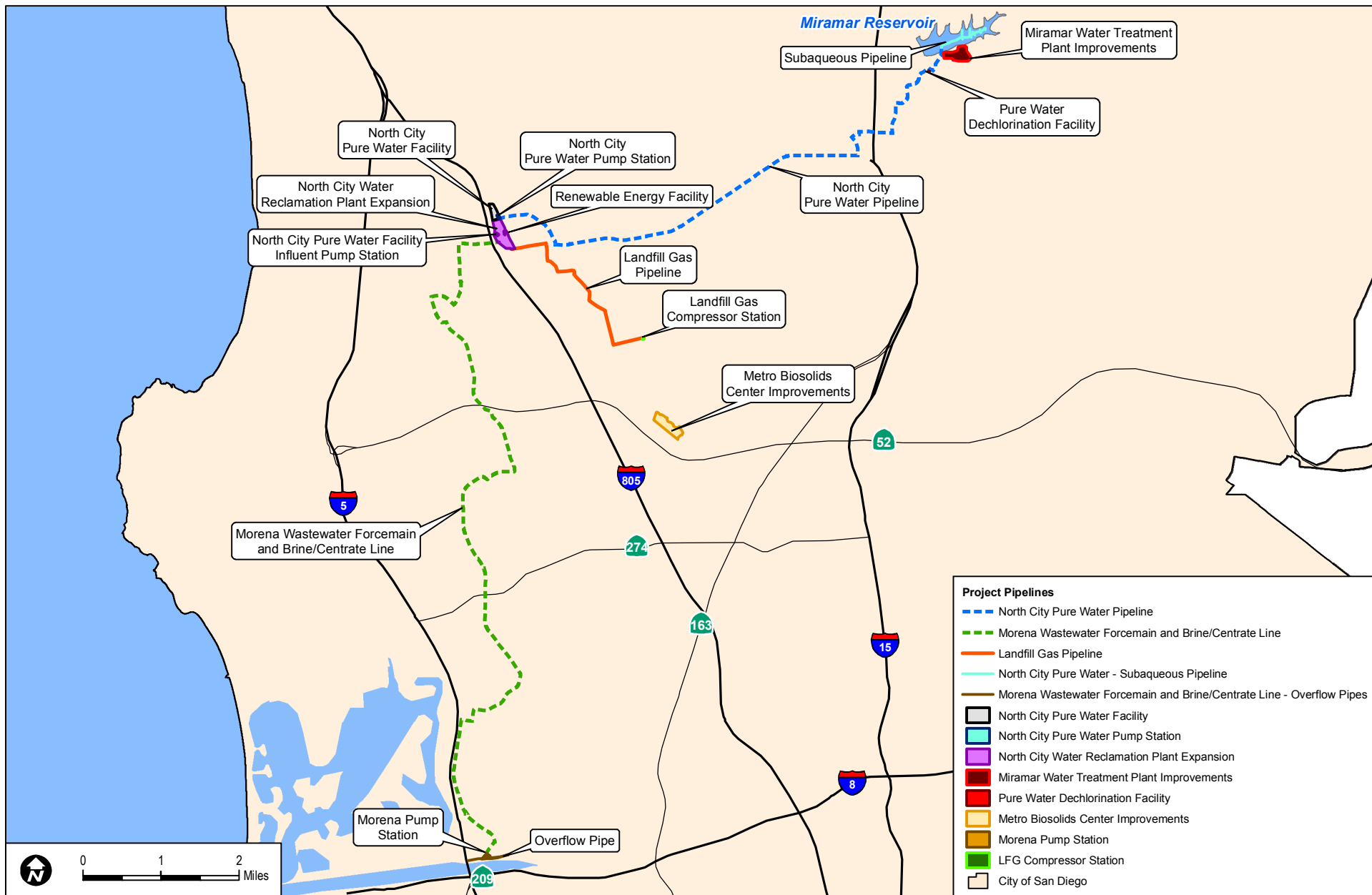
**FIGURE 2**  
Vicinity Map



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SOURCE: City of San Diego, 2015, 2016; SanGIS 2016



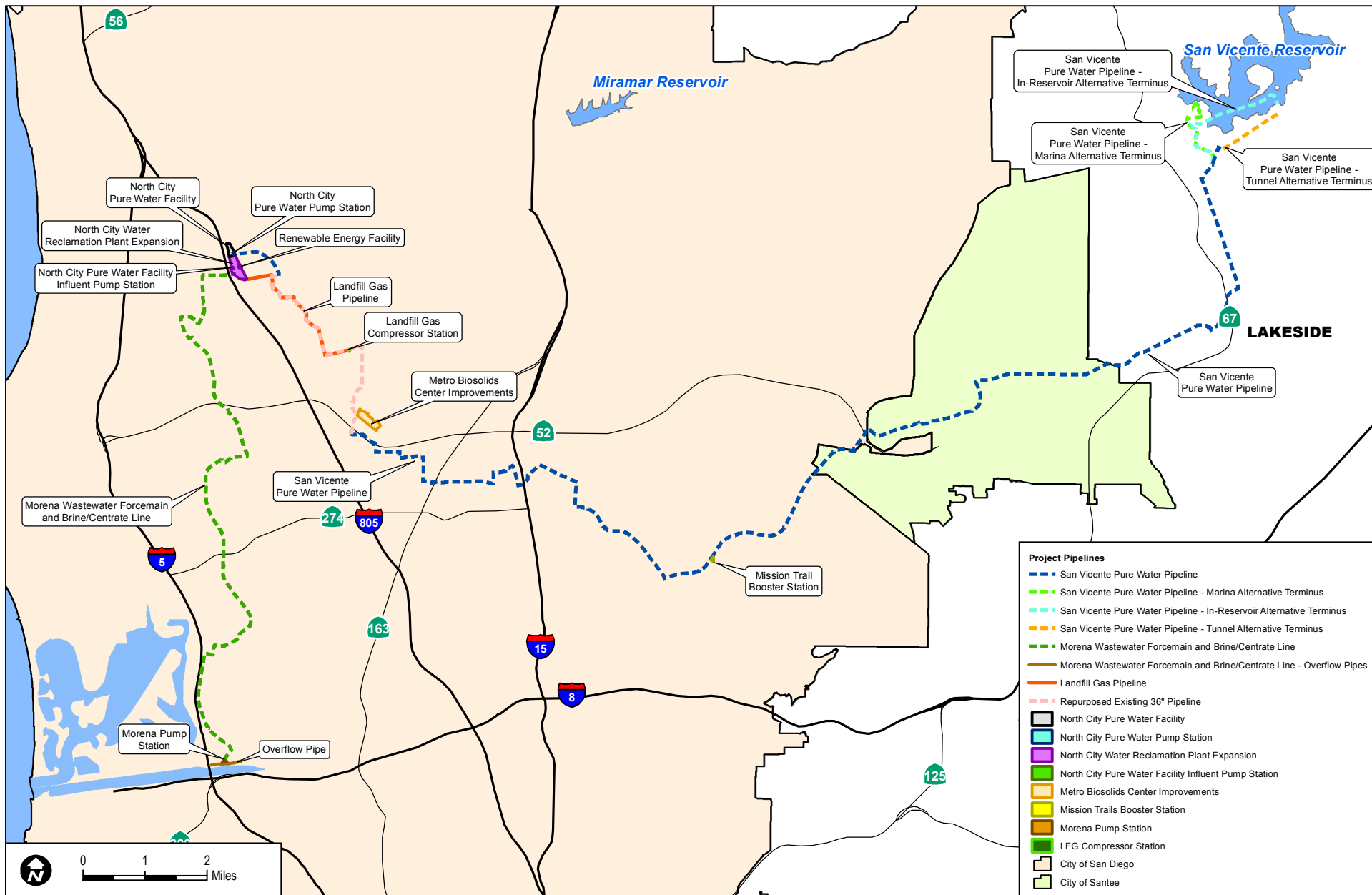
**FIGURE 3**

**Miramar Reservoir Alternative**

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SOURCE: City of San Diego, 2015, 2016; SanGIS 2016

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Pure Water San Diego Program North City Project Air Quality Technical Report

**FIGURE 4**

**San Vicente Reservoir Alternative**

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## **Air Quality Technical Report for the North City Project**

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The Morena Pipelines will follow the same alignment as depicted in Figure 3. The alignment would begin in an open cut section near the north corner of the Morena Pump Station site, entering the public street right-of-way on Custer Street. The alignment would generally head north along Sherman Street, Morena Boulevard, and West Morena Boulevard. The alignment would cross Tecolote Creek just to the east of Tecolote Road bridge, then continue generally heading north and east along Ingulf Street, Denver Street, Clairemont Drive, Clairemont Mesa Boulevard, and Genesee Avenue. It would cross near the bridge at San Clemente Canyon near the State Route 52 (SR-52) on-ramp. Following the bridge, the alignment would continue along Genesee Avenue, crossing SR-52 and the Metropolitan Transit System (MTS) railroad tracks. After the railroad tracks, the alignment will continue north along Genesee Avenue to the intersection of Nobel Drive and Genesee Avenue. After the intersection, the alignment will head east on Nobel Drive and then continue heading north on Towne Centre Drive. The alignment would turn east on Executive Drive and cross I-805. The alignment would end at NCWRP. Two trenchless installations are proposed along the Morena Pipelines alignment and include the following: (1) railroad tracks owned by the MTS at Rose Canyon north of University City High School and (2) the I-805 at the terminus of Executive Drive to the NCWRP. An additional trenchless installation would occur where the overflow pipeline crosses MTS right-of-way near the Morena Pump Station.

### **North City Water Reclamation Plant Expansion**

To ensure the 30 MGD of purified water can be produced at the NCPWF, the NCWRP will undergo an expansion of the primary, secondary, and tertiary treatment processes, as well as the corresponding support systems.

To increase capacity at the NCWRP, a number of new process units and tankage would be required. Process units requiring expansion include influent screening, primary sedimentation, flow equalization, aeration basins, secondary clarification, and tertiary filtration. The expanded NCWRP facilities are expected to include an additional bar screen, grit pumps, primary sedimentation with chemically enhanced primary treatment, a primary equalization basin, aeration basins using biological nutrient removal, secondary clarifiers, tertiary filters, and additional ancillary and support systems.

A brine-centrate valve vault will be constructed on the NCWRP site adjacent to the tunnel that conveys the brine/centrate and wastewater force mains on the western edge of the NCWRP next to the existing aeration basins. The brine-centrate valve vault would be approximately 22 by 14 feet, within which the centrate pipeline would connect into the brine/centrate pipeline. The vault would allow for personnel access to check valves and perform routine maintenance.

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### **North City Pure Water Facility Influent Pump Station**

The NCPWF Influent Pump Station will be constructed at the NCWRP and will convey tertiary effluent from the NCWRP to the NCPWF. The NCPWF Influent Pump Station will have a maximum capacity of 42.5 MGD to enable the NCPWF to produce a maximum of 34 MGD AADF of purified water after accounting for recycle and other streams. The NCPWF Influent Pump Station would be located on the west side of the NCWRP adjacent to the tertiary filters to divert tertiary effluent from upstream of the chlorination facilities and pump it to the NCPWF. The NCPWF Influent Pump Station would consist of a single enclosed 6,700-square-foot building approximately 45 feet high and would contain three separate rooms: a pump room, HVAC equipment room, and electrical room.

A pump station and associated pipes and appurtenances are currently located within the site. These components will be removed prior to construction of the NCPWF Influent Pump Station. The site is partly covered with grass and is relatively flat.

### **North City Pure Water Facility**

The new NCPWF would be located on the vacant 10-acre City-owned lot across Eastgate Mall to the north of the NCWRP. The NCPWF would produce 30 MGD AADF of purified water. A portion of the purified water would be returned to the NCWRP to reduce the TSS concentration of the disinfected tertiary treated effluent to 1,000 milligrams per liter (mg/L), a level suitable for irrigation. Approximately 30 MGD AADF of purified water will be pumped to Miramar Reservoir.

The treatment process includes an ozone system, biological activated carbon filtration (BAC), membrane filtration (MF), reverse osmosis (RO), and ultraviolet/advanced oxidation process (UV/AOP), before it is stabilized and chlorinated prior to pumping out to the reservoir (note under the San Vicente Reservoir Alternative the NCPWF would not include the ozone system or BAC). In addition to process areas for each stage of treatment at the NCPWF, the facility would include chemical feed systems and post-treatment chemical storage.

Access to the site will be from Eastgate Mall, and the entrance will be coordinated with the entrance to the NCWRP to be at the same traffic signal along Eastgate Mall. An approximately 15,000-square-foot operations and maintenance (O&M) building with three above-grade stories will be built as part of the NCPWF. The third level of the O&M building will be dedicated for a water quality testing laboratory.

### **North City Pure Water Pump Station**

The North City Pump Station would be located on the southeast corner of the NCPWF. The North City Pump Station will have three duty pumps and one standby pump, all of which are

## **Air Quality Technical Report for the North City Project**

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1,000 horsepower (HP) motor pumps and vertical-turbine. Each pump will be design to deliver a flow rate of 7,593 gallons per minute. The North City Pump Station will serve as the NCPWF's only effluent pump station and will convey purified water from the NCPWF Product Water Storage Tank to a reservoir.

### **North City Pure Water Pipeline**

The North City Pipeline will transmit purified water approximately 8 miles from the NCPWF to Miramar Reservoir where it will be blended with the imported raw water in the Miramar Reservoir and receive additional treatment at the Miramar WTP.

The North City Pipeline will be designed for an average daily flow of 30 MGD with a minimum daily flow of 23 MGD and a maximum daily flow of 33 MGD. A 48-inch-diameter welded steel pipe is the recommended width and material for the North City Pipeline as the most suitable for the design conditions.

The North City Pipeline alignment is shown on Figure 2. Detailed cross sections of the North City Pipeline are included on Sheets C1 through C51 in the Basis of Design Report, North City Conveyance (Brown and Caldwell 2016). The North City Pipeline is proposed to travel through the University, Mira Mesa, and Scripps Miramar Ranch communities (City of San Diego). The North City Pipeline would also cross federal lands in MCAS Miramar along segments of Miramar Road and would cross an unincorporated area of the County of San Diego immediately after the I-15 crossing.

The North City Pipeline alignment would begin in an open trench in Eastgate Mall and would head southeast, with a short trenchless section just before Eastgate Court. At Miramar Road, the North City Pipeline would continue east for approximately 4.5 miles, with a bridge over the MTS Railway crossing and a short trenchless section under the BNSF Railway crossing. The North City Pipeline would turn north on Kearny Villa Road and then turn east on Candida Street. The North City Pipeline would head north on Via Pasar via a trenchless segment, and then continue east on Via Excelencia in an open cut section. A trenchless segment would cross I-15 then would return to an open cut section across private property then turn north on Businesspark Avenue. The North City Pipeline would continue north on Carroll Canyon Road then head east on Hoyt Park Drive and Meanley Drive, continuing east/northeast before crossing Evans Pond in a trenchless segment.

The final segment of the North City Pipeline will consist of a subaqueous pipeline within Miramar Reservoir. The segment of pipeline will begin at the Miramar WTP site and continue to the far east bank of Miramar Reservoir. The pipeline would be a submerged, 4,800-foot-long HDPE pipe ranging in diameter from 8 inches to 54 inches, with 94 outlets and 188 subaqueous diffusers along the bottom of Miramar Reservoir.

# **Air Quality Technical Report for the North City Project**

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## **North City Renewable Energy Facility**

The North City Project requires new renewable energy facilities in order to provide power to the expanded NCWRP facilities as well as the NCPWF and North City Pump Station. The new facility includes a total of 15.4 megawatts (MW) of new generation capacity combined with 5 MW of existing power generation capacity at NCWRP.

The new renewable energy facility consists of 6.3 MW of new capacity in a Small Power Producing Facility (SPPF) that uses 100% LFG as fuel. The additional 9.1 MW of new power generation capacity within the facility uses LFG supplemented with natural gas as fuels, with 80% LFG and 20% natural gas.

The SPPF system requires a total of three new internal combustion engines (ICE) and generator units, the 3.8 MW Caterpillar Model CG260-16 IC or equivalent. The remaining power generation capacity requires a total of three new ICE and generator units, the same model as the SPPF. One additional 3.8 MW Caterpillar Model CG260-16 IC or equivalent ICE will serve as backup to the SPPF engines or the mixed-gas power generation engines.

The engines will be placed inside a building located immediately south of the new circular secondary clarifiers and north of the existing emergency power generation facility at NCWRP. The estimated stack height of the engines' exhaust stacks is 55 feet measured from the finished ground elevation immediately adjacent to the power generation building (at approximate elevation 354 feet) which is approximately 30 feet above the top of the building.

A skid-mounted equipment package consisting of a natural gas compressor system, air receivers, and oil storage will be located on the site adjacent to the renewable energy building. Two additional buildings will be included on the site for controls equipment and storage. The facility will also include a gas cleaning and cooling equipment skid and an electrical switchyard. An area chemical storage, containment, and feed facility will be provided for emissions control.

The facility layout includes relocation of the City's existing 1.6 MW SPPF engine to a new location on the site near the existing emergency power generation equipment at NCWRP in order to accommodate the layout of the new renewable energy facility.

The expanded renewable energy facility covers an area of approximately 1 acre and is fully contained within the existing NCWRP property. Approximately half of that area is existing impervious paved surface, and the entire area will be impervious once the facility is constructed. The site topography for the new renewable energy facility at NCWRP will necessitate a perimeter retaining wall approximately 300 feet in length with a maximum height of 22 feet. The retaining wall will be either a mechanically stabilized earth wall or reinforced concrete. The renewable energy facility will include earthwork and other site preparation activities for

## **Air Quality Technical Report for the North City Project**

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construction of the retaining wall. The renewable energy facility will include utility relocations, new utilities, equipment, earthwork, retaining wall, paving, and other site-preparation activities.

### **Landfill Gas Pipeline**

The new renewable energy facility will receive LFG from the City's Miramar Landfill gas collection system via a new 12-inch diameter LFG Pipeline. The new pipeline will parallel an existing 10-inch gas line that conveys LFG from the landfill to fuel the existing emergency power generation units at NCWRP. Approximately 3,627 linear feet of the new LFG Pipeline will be constructed within the limits of the City's existing 40-foot utility easement where it crosses the Veteran's Administration (VA) Miramar National Cemetery. An expanded additional 10-foot easement is planned along the remainder of the alignment outside of the VA to facilitate construction and future maintenance activities. The approximately 15,885 linear feet alignment runs from the existing Miramar Landfill north along the western end of the MCAS Miramar property to the NCWRP site.

A new 5,000-square-foot gas compressor station will be sited immediately adjacent to an existing gas compressor station at the Miramar Landfill in order to pressurize and convey the LFG from the landfill to NCWRP.

### **Metro Biosolids Center Improvements**

The MBC is located north of SR-52, adjacent to the Miramar Landfill. Projected flows of raw solids from the NCWRP will increase, while projected flows of digested solids from Point Loma WWTP will remain roughly constant such that MBC will be required to provide on-site anaerobic digestion for a greater percentage of the system's biosolids output. In addition to changes in quantity, changes in treatment processes at the NCWRP and Point Loma WWTP may change the quality, and hence treatability, of the two biosolids streams. Raw solids flows are expected to increase by a factor of 7 from a current maximum operating flow of 0.89 MGD to a projected flow of 6.55 MGD at maximum conditions; solids in pounds per day (lb/d) are expected to increase by a factor of 5:1 from 56,000 lb/d (current) to 294,000 lb/d (maximum conditions).

Improvements at MBC would include expanding the existing closed-loop grit removal system; replacement of the existing thickening centrifuges (a total of six new centrifuges will be installed); upgrades to digesters, including replacing the existing digester gas laterals with larger lines and larger gas handling appurtenances, installing one additional flare, and replacing existing biogas booster blowers with three new blowers and increasing the size of the biogas feed line from the blowers to the cogeneration facility; installing new thickened sludge supply line; upgrading the sludge feed pumps and polymer feed pumps; installing three new centrate pumps and variable frequency drives; adding a fourth off-the-shelf replacement peristaltic pump; and

## **Air Quality Technical Report for the North City Project**

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expansion of existing piping systems. The current centrate pump station at MBC would require pumps to be upgraded to be capable of higher flows and pressure. In addition, the centrate forcemain would need regular maintenance to clean the pipe and restore capacity to its full potential. As part of the pipe cleaning, existing plug valves would need to be replaced with full port valves. Launching and receiving pits may need to be constructed.

### **Miramar Water Treatment Plant Improvements**

Under the Miramar Reservoir Alternative, purified water discharged into the Miramar Reservoir will be pumped via the existing Miramar Reservoir Pump Station to the Miramar WTP for treatment and eventual distribution. Currently, the majority of the water treated at the Miramar WTP is fed directly to the plant, and the Miramar Reservoir is primarily used for balancing flows and emergency storage. Under the Miramar Reservoir Alternative, the Miramar Reservoir will receive approximately 30 MGD AADF of purified water on a more or less continuous basis, meaning that the Miramar Reservoir Pump Station must operate at roughly 30 MGD AADF to maintain the inflow/outflow balance in the reservoir.

This increased use calls for rehabilitation of the Miramar Reservoir Pump Station, which includes upgrading the existing pumps with variable frequency drives along with various mechanical upgrades to the valves and piping. The additional pumping will result in an additional annual power demand of 586,000 kilowatt-hours. However, an on-site 1 MW solar photovoltaic system will be installed to completely cover the power needs of the improvements to the facility.

### **Pure Water Dechlorination Facility**

The Dechlorination Facility will be located at the end of Meanley Drive off the cul-de-sac on the City's property for the Miramar Recycled Water Storage Tank. The facility will include an approximately 768-square-foot above-grade building to house chemical storage tanks, dosing pumps, analyzers, and associated piping valves and appurtenances. The NCPWF purified water will be chlorinated to maintain chlorine residual and prevent regrowth within the North City Pipeline. Prior to blending the purified water with the raw water at Miramar Reservoir, the remaining free chlorine residual will be removed from the purified water to protect the aquatic life in the lake. The Dechlorination Facility would reduce the residual chlorine concentration to below the required limit.

### **1.3.2 San Vicente Reservoir Alternative**

The San Vicente Reservoir Alternative shares most of the same components with the Miramar Reservoir Alternative. Project components described above under the Miramar Reservoir Alternative that are also common to the San Vicente Reservoir Alternative include (1) the

## **Air Quality Technical Report for the North City Project**

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Morena Pump Station and Pipelines, (2) expansion of the existing NCWRP, (3) construction of a new influent pump station at NCWRP and conveyance pipeline between NCWRP and the NCPWF, (4) a new renewable energy facility at the NCWRP, (5) a new LFG Pipeline between the Miramar Landfill gas collection system and the NCWRP, and (6) upgrades at the MBC.

Because of the different sizes of the Miramar Reservoir and San Vicente Reservoir, the design of the NCPWF for each will be slightly different. However, for the purposes of the air quality analysis, the facilities would be similar enough that no additional discussion is provided under this alternative, and the reader is referred to the discussion under the Miramar Reservoir Alternative. Project components which are applicable only to the San Vicente Reservoir Alternative are discussed separately below and include (1) the San Vicente Pure Water Pipeline (San Vicente Pipeline) including the three alternative reservoir inlet options: Tunnel, In-Reservoir, and Marina; and (2) MTBS. Figure 4 provides an overview of the San Vicente Reservoir Alternative.

### **San Vicente Pipeline**

The San Vicente Pipeline will be designed for an average daily flow of 30 MGD, with a minimum daily flow of 27 MGD and a maximum daily flow of 35 MGD. The San Vicente Pipeline includes a segment (approximately 21,300 linear feet) of existing recycled water pipe that will be repurposed for purified water conveyance. That segment currently serves non-potable reuse customers. Under the San Vicente Reservoir Alternative, the San Vicente Pipeline will continue to supply those non-potable reuse customers with purified water. Approximately 1.4 MGD AADF will be provided as non-potable reuse to existing customers.

The remaining 133,475 linear feet of the San Vicente Pipeline would be newly constructed using a combination of open-cut trench and trenchless construction methods to deliver 30 MGD AADF to the San Vicente Reservoir. A 48-inch-diameter and 60-inch-diameter welded steel pipe is the recommended width and material for the San Vicente Pipeline as the most suitable for the design conditions.

The general alignment of the San Vicente Pipeline is shown on Figure 4. Detailed cross sections of the San Vicente Pipeline are included on Sheets 7 through 89 in Appendix K of the 10% Engineering Design Report North City Plant to San Vicente Pipeline (Brown and Caldwell 2015). The pipeline is proposed to travel through the University, Kearny Mesa, Navajo, Tierrasanta, and East Elliot communities of the City of San Diego; the City of Santee; and the incorporated community of Lakeside in the County of San Diego.

The first approximately 5,500 linear feet of the San Vicente Pipeline would follow the same alignment as the North City Pipeline along Eastgate Mall. At Miramar Road, purified water would be conveyed via an existing 36-inch-diameter recycled water pipeline for approximately

## **Air Quality Technical Report for the North City Project**

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21,300 linear feet as described above. This repurposed 36-inch-diameter pipeline traverses federal lands, including the Miramar National Cemetery and MCAS Miramar. The new 48-inch-diameter San Vicente Pipeline would begin again in an open-cut segment on Copley Drive and would continue southeast until heading due east on Copley Park Place, then south on Convoy Street, then east again on Convoy Court. The San Vicente Pipeline would continue east on Mercury Court, passing through various business park and industrial uses before heading south on Industrial Park Driveway.

A trenchless segment would cross Clairemont Mesa Boulevard, and the San Vicente Pipeline would continue south on Ronson Court before heading east on Ronson Road. A trenchless segment would cross SR-163, and then the San Vicente Pipeline would continue again in an open cut segment east along Lightwave Avenue. The alignment would continue north on Ruffin Road, east on Clairemont Mesa Boulevard and then south on Murphy Canyon Road. At Elanus Canyon, the alignment would head east across a parking lot before crossing I-15 in a trenchless segment and traversing the canyon until rejoining Clairemont Mesa Boulevard. At Santo Road the alignment would head south then east along Tierrasanta Boulevard. A trenchless segment would continue south across the San Diego River, and then the alignment would turn east on Mission Gorge Road, traversing the Mission Trails Regional Park. A trenchless segment would cross the SR-52 at West Hills Parkway before continuing east on Carlton Oaks Drive. The alignment would leave the roadway right-of-way for a short segment and then cross Sycamore Canyon via a trenchless crossing before continuing east again within Carlton Oaks Drive.

The San Vicente Pipeline would continue north on Halberns Boulevard, then east on Mast Boulevard with another trenchless segment between two disconnected portions of Mast Boulevard. The alignment would continue east on Riverside Drive and Lakeside Avenue before connecting with Willow Road. From Willow Road the San Vicente Pipeline would turn north on Moreno Avenue, continuing north to the shore of the San Vicente Reservoir.

### **San Vicente Reservoir Inlet Alignment Alternatives**

The San Vicente Reservoir Alternative proposes three alternative reservoir inlet options: (1) a Tunnel Alternative Terminus (TAT), (2) an In-Reservoir Alternative Terminus (IRAT), and (3) a Marina Alternative Terminus (MAT).

For the TAT, an approximately 5,400-linear-foot tunnel would be located at the end of the San Vicente Pipeline. The TAT would discharge 32 feet above the spillway elevation of the San Vicente Dam (elevation 766 feet) into a reinforced concrete discharge structure and flow down a natural drainage way into the San Vicente Reservoir. Prior to the structure itself, a dechlorination injection point is envisioned to be incorporated to eliminate any residual chlorine in the purified



## **Air Quality Technical Report for the North City Project**

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water prior to discharge. Monitoring and injection equipment could be located on an existing City property nearby or at the structure itself, provided regular maintenance can be accommodated.

The IRAT would continue via open trench from Moreno Avenue approximately 6,900 linear feet up the existing Marina access road to the San Vicente Reservoir's western side near the newly constructed Marina. An approximately 10,000-linear-foot subaqueous pipeline constructed of HDPE would then convey water across the San Vicente Reservoir, existing up the far bank where it would connect to the same discharge structure as proposed for the TAT. The subaqueous pipeline would be weighted to ensure it remains on the San Vicente Reservoir bottom in its final position.

The MAT would follow the same alignment as the IRAT from the intersection of Vigilante Road and Moreno Avenue along the Marina access road. At the road's high point, near the saddle dam, the pipeline would continue in the access road to the Marina parking area rather than transition to a subaqueous pipeline. The pipeline would continue in the access road that runs along the shoreline and would discharge at the western shore of the San Vicente Reservoir. The MAT pipeline would be approximately 8,625 linear feet.

### **Mission Trails Booster Station**

The MTBS will receive purified water pumped from the North City Pump Station via the San Vicente Pipeline. The purified water will be pumped from the MTBS to the San Vicente Reservoir via the San Vicente Pipeline. The MTBS will be located along Mission Gorge Road across two privately owned parcels. The MTBS will have three duty pumps and one standby pump, all of which are 1,000 HP vertical-turbine motor pumps.

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## 2 EXISTING CONDITIONS

### 2.1 Climate and Topography

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges (in degrees Fahrenheit (°F)) from the mid-40s to the high 90s. Most of the region's precipitation falls from November to April, with infrequent (approximately 10%) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches; the amount increases with elevation as moist air is lifted over the mountains (WRCC 2016a).

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east; along with local meteorology, it influences the dispersal and movement of pollutants in the basin. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

### 2.2 San Diego Air Basin Climatology

The Project area is located within the San Diego Air Basin (SDAB or basin) and is subject to the San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAB is one of 15 air basins that geographically divide the State of California. The SDAB is currently classified as a federal nonattainment area for ozone (O<sub>3</sub>) and a state nonattainment area for particulate matter less than 10 microns (PM<sub>10</sub>), particulate matter less than 2.5 microns (PM<sub>2.5</sub>), and O<sub>3</sub>.

The SDAB lies in the southwest corner of California and comprises the entire San Diego region, covering 4,260 square miles, and is an area of high air pollution potential. The basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The climate also drives the pollutant levels. The climate of San Diego is classified as Mediterranean, but it is incredibly diverse due to the topography. The climate is dominated by the Pacific High pressure system that results in mild, dry summers and mild, wet winters. The Pacific High drives the prevailing winds in the SDAB. The winds tend to blow onshore during the daytime and offshore at night. In the fall months, the SDAB is often impacted by Santa

## Air Quality Technical Report for the North City Project

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Ana winds. These winds are the result of a high pressure system over the Nevada–Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean (SDAPCD 2015c). The winds blow the air basin’s pollutants out to sea. However, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase the San Diego O<sub>3</sub> concentrations. A strong Santa Ana also primes the vegetation for firestorm conditions.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce O<sub>3</sub>, which contributes to the formation of smog. Smog is a combination of smoke and other particulates, O<sub>3</sub>, hydrocarbons, oxides of nitrogen (NO<sub>x</sub>) and other chemically reactive compounds which, under certain conditions of weather and sunlight, may result in a murky brown haze that causes adverse health effects (CARB 2016).

Light daytime winds, predominately from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and NO<sub>x</sub> emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the basin are associated with heavy traffic. Nitrogen dioxide (NO<sub>2</sub>) levels are also generally higher during fall and winter days.

~~Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County. This often produces high O<sub>3</sub> concentrations, as measured at air pollutant monitoring stations within San Diego County. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O<sub>3</sub> are transported.~~

### 2.3 Sensitive Receptors

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed sensitive receptors are the most serious hazards of existing air quality conditions in the area.

## **Air Quality Technical Report for the North City Project**

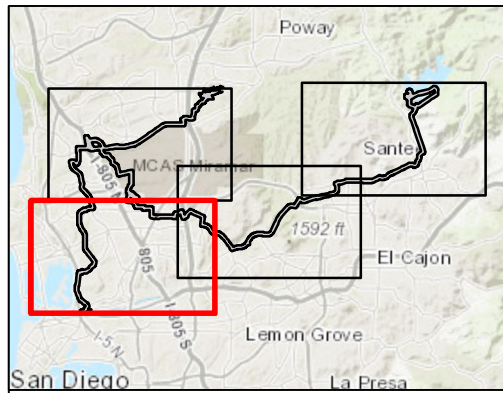
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Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, athletic fields, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The project's proposed pipelines would have segments that would be located within 1,000 feet of sensitive receptors such as those previously listed. However, the treatment facilities and would not be located within 1,000 feet of any sensitive land uses (see Figures 5A through 5D).

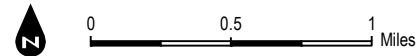
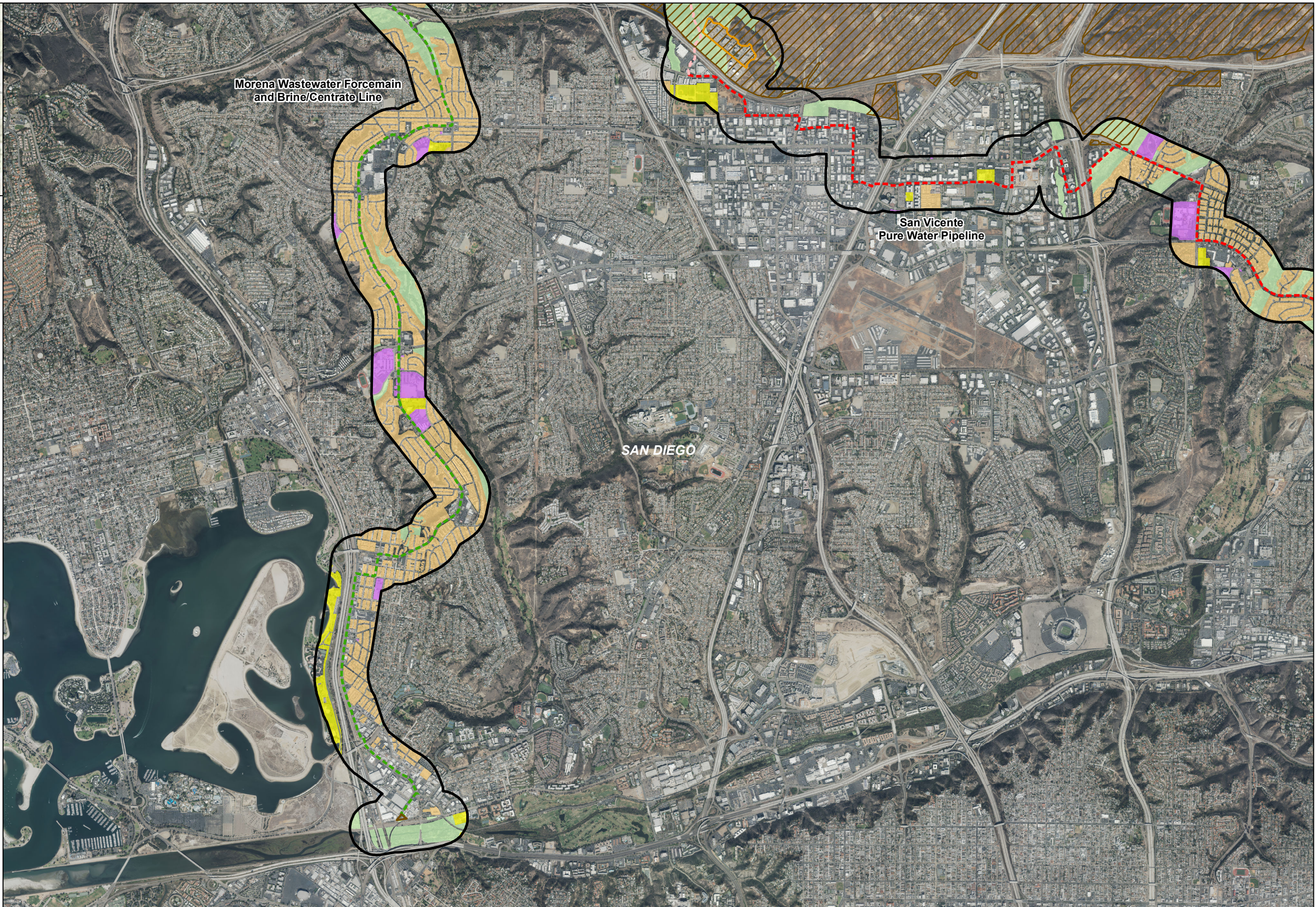
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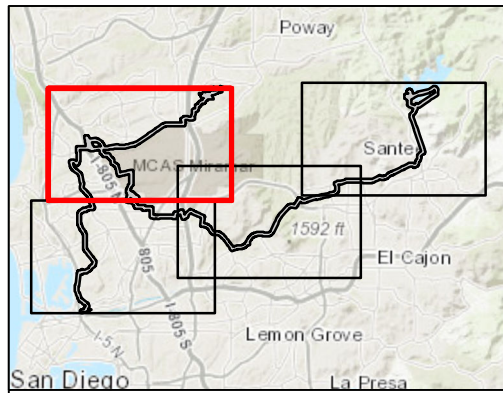
- Study Area
- Sensitive Receptor Location**
- Residential
- Recreation
- Public Institution
- Open Space
- Municipal Boundaries
- MCAS Miramar
- Project Pipelines**
- San Vicente Pure Water Pipeline and Alternatives
- Morena Wastewater Forcemain and Brine/Centrates Line
- Repurposed Existing 36" Pipeline
- Project Facilities**
- Metro Biosolids Center Improvements
- Morena Pump Station



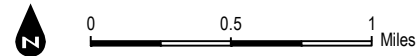
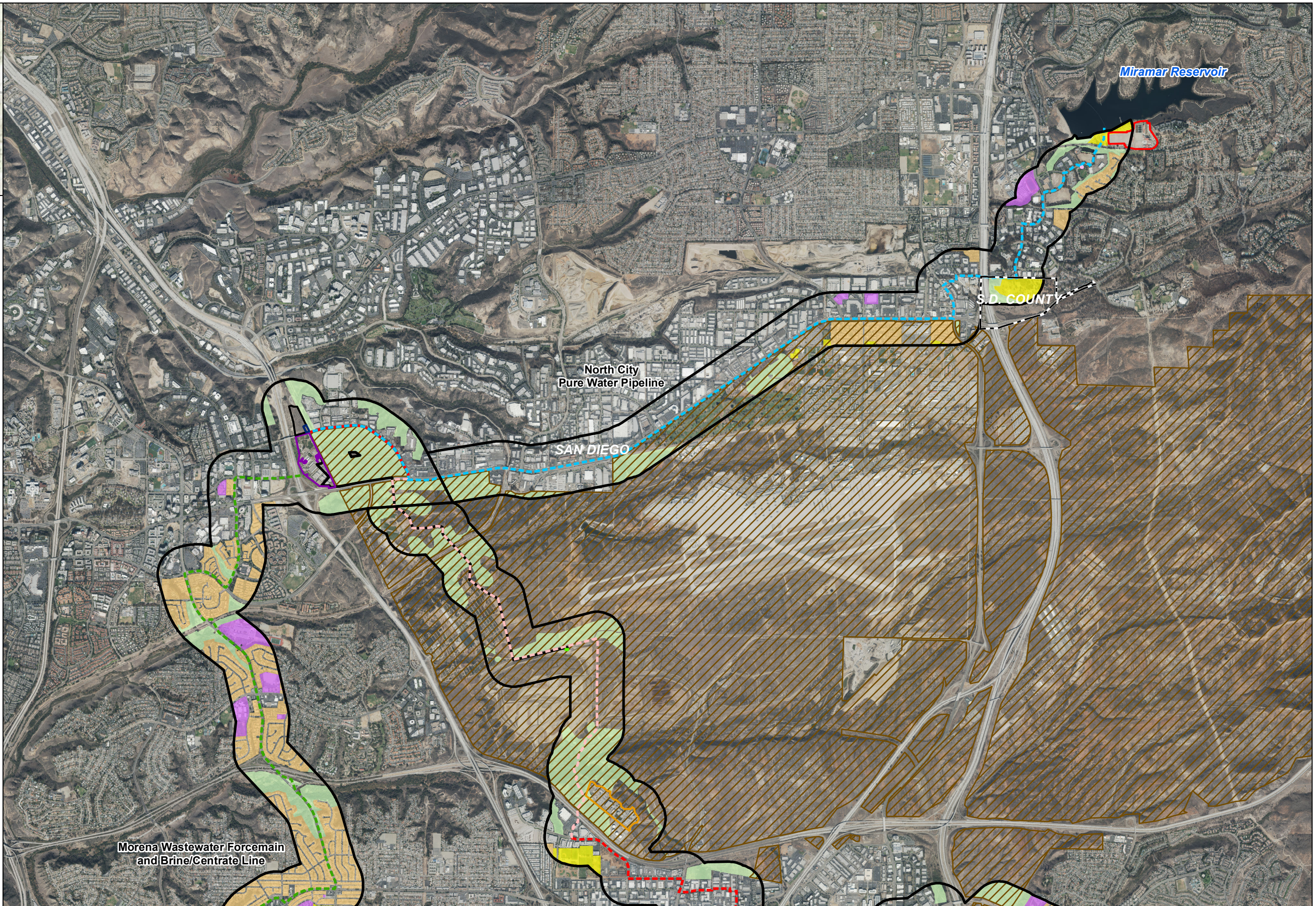
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- Study Area
- Sensitive Receptor Location**
- Residential
- Recreation
- Public Institution
- Open Space
- Municipal Boundaries
- MCAS Miramar
- Project Pipelines**
- North City Pure Water Pipeline
- San Vicente Pure Water Pipeline and Alternatives
- Morena Wastewater Forcemain and Brine/Centrates Line
- Landfill Gas Pipeline
- Repurposed Existing 36" Pipeline
- Project Facilities**
- North City Pure Water Facility
- North City Pure Water Pump Station
- North City Water Reclamation Plant Expansion
- Metro Biosolids Center Improvements
- Pure Water Dechlorination Facility
- Miramar Water Treatment Plant Improvements
- LFG Compressor Station



SOURCE: SanGIS 2016; SANDAG 2016

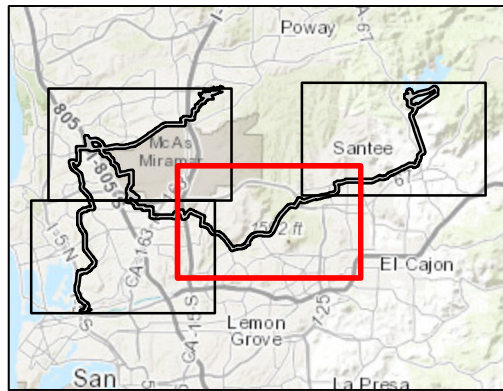
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Pure Water San Diego Program North City Project Air Quality Technical Report

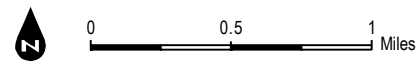
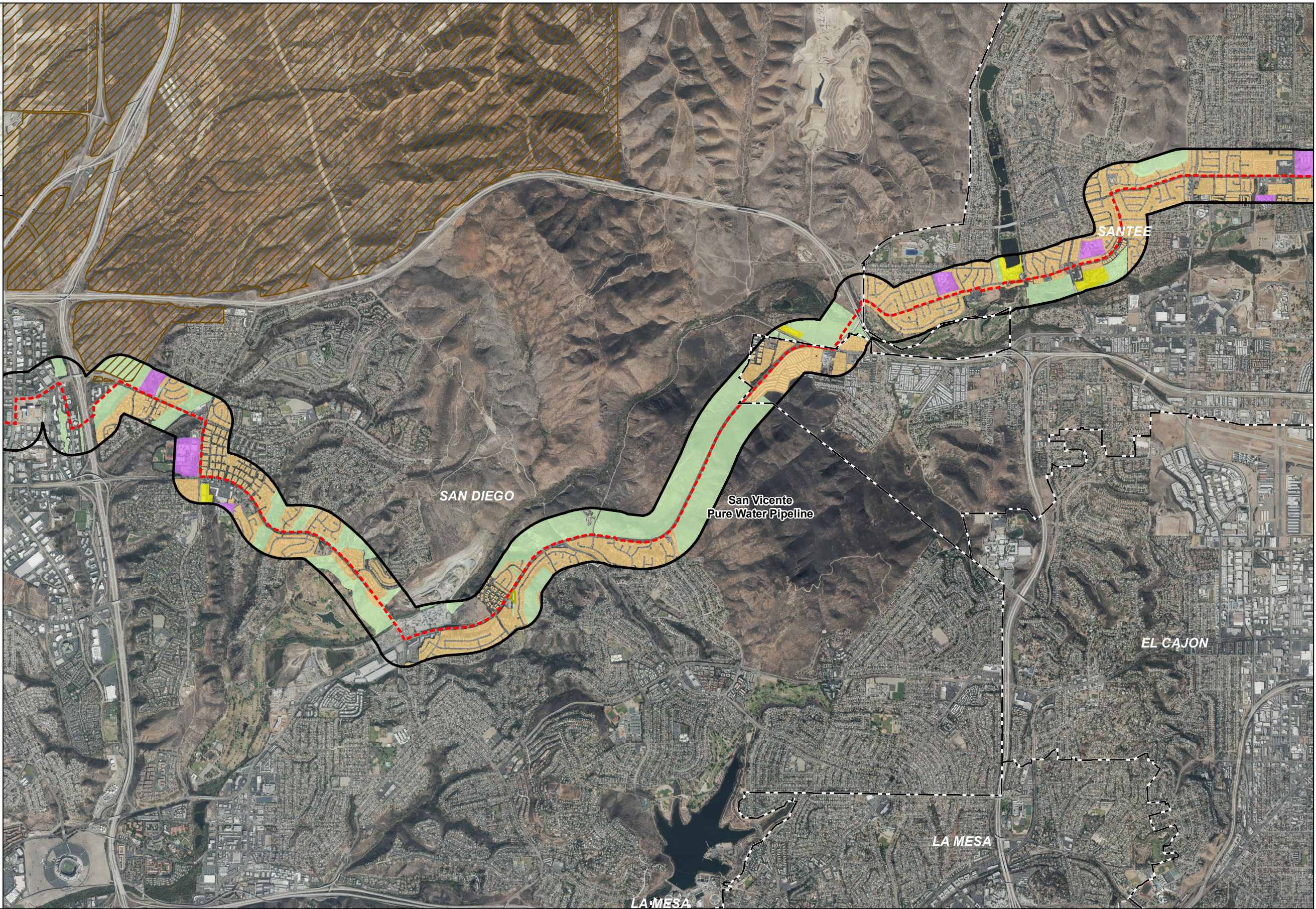
**FIGURE 5B**

Air Quality Sensitive Receptor Locations

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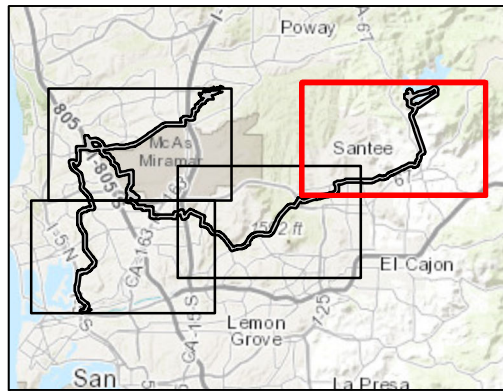
- Study Area
- Sensitive Receptor Location**
- Residential
- Recreation
- Public Institution
- Open Space
- Municipal Boundaries
- MCAS Miramar
- Project Pipelines**
- San Vicente Pure Water Pipeline and Alternatives
- Project Facilities**
- Mission Trails Booster Station



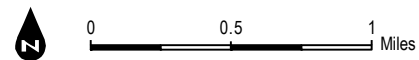
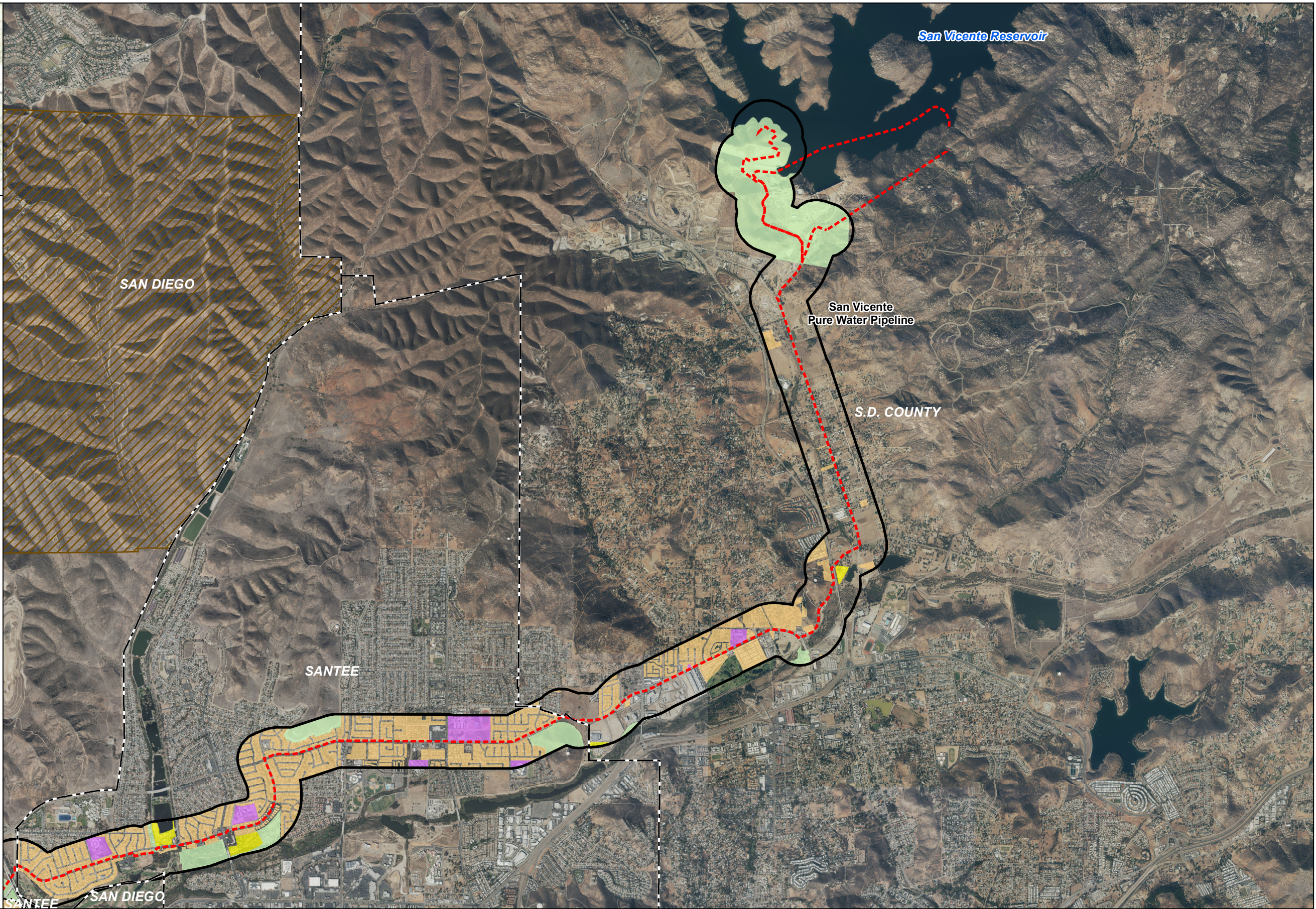
SOURCE: SanGIS 2016; SANDAG 2016

**FIGURE 5C**  
Air Quality Sensitive Receptor Locations

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- Study Area
- Sensitive Receptor Location**
- Residential
- Recreation
- Public Institution
- Open Space
- Municipal Boundaries
- MCAS Miramar
- Project Pipelines**
- San Vicente Pure Water Pipeline and Alternatives



SOURCE: SanGIS 2016; SANDAG 2016

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## 3 POLLUTANTS AND EFFECTS

### 3.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include: O<sub>3</sub>, NO<sub>2</sub>, CO, sulfur dioxide (SO<sub>2</sub>), PM<sub>10</sub>, PM<sub>2.5</sub>, and lead (Pb). These pollutants are discussed in the following paragraphs.<sup>1</sup> In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** O<sub>3</sub> is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOCs), sometimes referred to as reactive organic gases, and NO<sub>x</sub> react in the presence of ultraviolet sunlight. O<sub>3</sub> is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of VOCs and NO<sub>x</sub>, the precursors of O<sub>3</sub>, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O<sub>3</sub> formation, and ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. Short-term exposures (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

**Nitrogen Dioxide.** Most NO<sub>2</sub>, like O<sub>3</sub>, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO<sub>2</sub> are collectively referred to as NO<sub>x</sub> and are major contributors to O<sub>3</sub> formation. High concentrations of NO<sub>2</sub> can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO<sub>2</sub> and chronic pulmonary fibrosis and some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million by volume (ppm).

**Carbon Monoxide.** CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the Project area, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that

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<sup>1</sup> The following descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's "Six Common Air Pollutants" (EPA 2012) and the California Air Resources Board's "Glossary of Air Pollutant Terms" (CARB 2016a) published information.

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dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions; primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO<sub>2</sub> are coal and oil used in power plants and industries; as such, the highest levels of SO<sub>2</sub> are generally found near large industrial complexes. In recent years, SO<sub>2</sub> concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO<sub>2</sub> and limits on the sulfur content of fuels. SO<sub>2</sub> is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. SO<sub>2</sub> can also yellow plant leaves and erode iron and steel.

**Particulate Matter.** Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. Fine particulate matter, or PM<sub>2.5</sub>, is roughly 1/28 the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOC. Inhalable or coarse particulate matter, or PM<sub>10</sub>, is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

PM<sub>2.5</sub> and PM<sub>10</sub> pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM<sub>2.5</sub> and PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as Pb, sulfates, and nitrates, can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases, such as chlorides or ammonium, into the lungs, also causing injury. Whereas PM<sub>10</sub> tends to collect in the upper portion of the



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respiratory system, PM<sub>2.5</sub> is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

**Lead.** Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline, the manufacturing of batteries, paint, ink, ceramics, and ammunition and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance including intelligence quotient performance, psychomotor performance, reaction time, and growth.

### 3.2 Non-Criteria Pollutants

**Toxic Air Contaminants.** A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced either on short-term (acute) or long-term (chronic) exposure to a given TAC.

**Diesel Particulate Matter.** Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. CARB classified “particulate emissions from diesel-fueled engines” (DPM; 17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars, and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000).

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**Odorous Compounds.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

**Valley Fever.** Coccidioidomycosis, more commonly known as "Valley Fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The fungus is very prevalent in the soils of California's San Joaquin Valley, particularly in Kern County. Kern County is considered a highly endemic county (i.e., more than 20 cases annually of Valley Fever per 100,000 people) based on the incidence rates reported through 2016 (California Department of Public Health 2017). The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

San Diego County is not considered a highly endemic region for Valley Fever as the latest report from the California Department of Public Health listed San Diego County as having 4.4 cases per 100,000 people (California Department of Public Health 2017). Similarly, among the total reported incidents of Valley Fever in San Diego County from 2007 through 2016, only 7% of the cases were in in the zip codes where the Project is located (County of San Diego 2017).

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## 4 REGULATORY SETTING

### 4.1 Federal

#### 4.1.1 Criteria Pollutants

##### **Clean Air Act**

The federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The U.S. Environmental Protection Agency (EPA) is responsible for implementing most aspects of the CAA, including the setting of National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O<sub>3</sub> protection, and enforcement provisions.

NAAQS are established by the EPA for “criteria pollutants” under the CAA, which are O<sub>3</sub>, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Pb).

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

The 1977 federal Clean Air Act Amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants (HAPs) to protect public health and welfare. HAPs include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

##### ***Federal General Conformity Rule***

Federal projects are subject to either the Transportation Conformity Rule (40 CFR, Part 51, Subpart T), which applies to federal highway and transit projects, or the General Conformity Rule (40 CFR, Part 51, Subpart W), which applies to all other federal projects. The General Conformity Rule implements Section 176(c) of the federal CAA, which requires that a federal agency ensure conformity with an approved SIP for air emissions generated by an agency action.

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Conformity determinations for federal actions are required for each pollutant where the total of direct and indirect emissions in a nonattainment or maintenance area caused by a federal action equaling or exceeding any of the rates identified in Table 4.1-1. Because the project area is located within the SDAB, which is in nonattainment for O<sub>3</sub> and a maintenance area for carbon monoxide, conformity determination requirements do apply. If a project's emissions would exceed the *de minimis* thresholds for CO, NO<sub>x</sub>, or VOCs, the project would be considered to have a significant impact related to O<sub>3</sub>.

**Table 4.1-1  
Federal De Minimis Levels**

Pollutant	Threshold
VOC	100 tons/year
NO <sub>x</sub>	100 tons/year
CO	100 tons/year
SO <sub>x</sub>	100 tons/year
PM <sub>10</sub>	100 tons/year
PM <sub>2.5</sub>	100 tons/year

Source: 40 CFR Part 93.153(b)(2)

### **4.1.2 Hazardous Air Pollutants**

The 1977 federal Clean Air Act Amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants to protect public health and welfare. HAPs include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

## **4.2 State**

### **4.2.1 Criteria Pollutants**

#### **California Clean Air Act**

The California Clean Air Act was adopted in 1988 and establishes the state's air quality goals, planning mechanisms, regulatory strategies, and standards of progress. Under the California Clean Air Act, the task of air quality management and regulation has been legislatively granted to the California Air Resources Board (CARB), with subsidiary responsibilities assigned to air quality management districts (AQMDs) and air pollution control districts (APCDs) at the regional and county levels. CARB is responsible for ensuring implementation of the California Clean Air Act, responding to the federal CAA, and regulating emissions from motor vehicles and consumer

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products. Pursuant to the authority granted to it, CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS.

The NAAQS and CAAQS are presented in Table 4.2-1, Ambient Air Quality Standards.

**Table 4.2-1  
Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards <sup>a</sup>	National Standards <sup>b</sup>	
		Concentration <sup>c</sup>	Primary <sup>c,d</sup>	Secondary <sup>c,e</sup>
O <sub>3</sub>	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	—	Same as Primary Standard <sup>f</sup>
	8 hours	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm (137 µg/m <sup>3</sup> ) <sup>f</sup>	
NO <sub>2</sub> <sup>g</sup>	1 hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.100 ppm (188 µg/m <sup>3</sup> )	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	
CO	1 hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	None
	8 hours	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	
SO <sub>2</sub> <sup>h</sup>	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )	—
	3 hours	—	—	0.5 ppm (1,300 µg/m <sup>3</sup> )
	24 hours	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm (for certain areas) <sup>g</sup>	—
	Annual	—	0.030 ppm (for certain areas) <sup>g</sup>	—
PM <sub>10</sub> <sup>i</sup>	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	—	
PM <sub>2.5</sub> <sup>i</sup>	24 hours	—	35 µg/m <sup>3</sup>	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	
Lead <sup>j, k</sup>	30-day Average	1.5 µg/m <sup>3</sup>	—	—
	Calendar Quarter	—	1.5 µg/m <sup>3</sup> (for certain areas) <sup>k</sup>	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m <sup>3</sup>	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m <sup>3</sup> )	—	—
Vinyl chloride <sup>l</sup>	24 hours	0.01 ppm (26 µg/m <sup>3</sup> )	—	—
Sulfates	24- hours	25 µg/m <sup>3</sup>	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016b.

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**Notes:**  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter; CO = carbon monoxide;  $\text{mg}/\text{m}^3$  = milligrams per cubic meter;  $\text{NO}_2$  = nitrogen dioxide;  $\text{O}_3$  = ozone;  $\text{PM}_{10}$  = particulate matter with an aerodynamic diameter less than or equal to 10 microns;  $\text{PM}_{2.5}$  = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; ppm = parts per million by volume;  $\text{SO}_2$  = sulfur dioxide

- <sup>a</sup> California standards for  $\text{O}_3$ , CO,  $\text{SO}_2$  (1-hour and 24-hour),  $\text{NO}_2$ , suspended particulate matter ( $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ ), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- <sup>b</sup> National standards (other than  $\text{O}_3$ ,  $\text{NO}_2$ ,  $\text{SO}_2$ , particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The  $\text{O}_3$  standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For  $\text{PM}_{10}$ , the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than 1. For  $\text{PM}_{2.5}$ , the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.
- <sup>c</sup> Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- <sup>d</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- <sup>e</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- <sup>f</sup> On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- <sup>g</sup> To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- <sup>h</sup> On June 2, 2010, a new 1-hour  $\text{SO}_2$  standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- <sup>i</sup> On December 14, 2012, the national annual  $\text{PM}_{2.5}$  primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour  $\text{PM}_{2.5}$  standards (primary and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour  $\text{PM}_{10}$  standards (primary and secondary) of  $150 \mu\text{g}/\text{m}^3$  were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.
- <sup>j</sup> CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- <sup>k</sup> The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

## 4.2.2 Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. The Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

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In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel powered equipment. CARB approved several Airborne Toxic Control Measures (ATCM) that reduce diesel emissions including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

### **California Health and Safety Code Section 41700**

This section of the Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

### **4.3 Local**

#### **San Diego Air Pollution Control District**

While CARB is responsible for the regulation of mobile emission sources within the state, local AQMDs and APCDs are responsible for enforcing standards and regulating stationary sources. The Project site is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

In San Diego County, O<sub>3</sub> and particulate matter are the pollutants of main concern, since exceedances of CAAQS for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM<sub>10</sub>, PM<sub>2.5</sub>, and O<sub>3</sub> standards. The SDAB is also a federal O<sub>3</sub> attainment (maintenance) area for 1997 8-hour O<sub>3</sub> standard, a O<sub>3</sub> nonattainment area for the 2008 8-hour O<sub>3</sub> standard, and a CO maintenance area (western and central part of the SDAB only). The Project area is in the CO maintenance area.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The County Regional Air Quality Strategy (RAQS) was initially adopted in 1991 and is updated on a triennial basis, most recently in 2009 (SDAPCD 2009a). The

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RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, and information regarding projected growth in the cities and San Diego County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the cities and San Diego County as part of the development of their general plans.

The Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state projects would allow the region to reach attainment of the federal 1997 8-hour O<sub>3</sub> standard by 2009 (SDAPCD 2007). In this plan, SDAPCD relies on the RAQS to demonstrate how the region will comply with the federal O<sub>3</sub> standard. The RAQS details how the region will manage and reduce O<sub>3</sub> precursors (oxides of nitrogen (NO<sub>x</sub>) and VOCs) by identifying measures and regulations intended to reduce these contaminants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive projects for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS. According to the Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County, the SDAB did not reach attainment of the federal 1997 standard until 2011 (SDAPCD 2012). This plan, however, demonstrates the region's attainment of the 1997 O<sub>3</sub> NAAQS and outlines the plan for maintaining attainment status.

In December 2005, SDAPCD prepared a report titled Measures to Reduce Particulate Matter in San Diego County to address implementation of Senate Bill (SB) 656 in San Diego County (SB 656 required additional controls to reduce ambient concentrations of PM<sub>10</sub> and PM<sub>2.5</sub>) (SDAPCD 2005). In the report, SDAPCD evaluated the implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and trackout removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust.

As stated earlier, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD:

- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or



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have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).

- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009b).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015a).

### City of San Diego

The San Diego Municipal Code addresses air quality and odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, “Air Contaminant Regulations,” which states that air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located (City of San Diego 2010).

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## 5 LOCAL AIR QUALITY

### 5.1 SDAB Attainment Designation

An area is designated in attainment when it is in compliance with the NAAQS and/or CAAQS. These standards are set by the EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. The criteria pollutants of primary concern that are considered in this analysis are O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Although there are no ambient standards for VOCs or NO<sub>x</sub>, they are important as precursors to O<sub>3</sub>.

The portion of the SDAB where the project site is located is designated by the EPA as an attainment area for the 1997 8-hour NAAQS for O<sub>3</sub> and as a marginal nonattainment area for the 2008 8-hour NAAQS for O<sub>3</sub>. The SDAB is designated in attainment for all other criteria pollutants under the NAAQS with the exception of PM<sub>10</sub>, which was determined to be unclassifiable. The SDAB is currently designated nonattainment for O<sub>3</sub> and particulate matter, PM<sub>10</sub> and PM<sub>2.5</sub>, under the CAAQS. It is designated attainment for the CAAQS for CO, NO<sub>2</sub>, SO<sub>2</sub>, lead, and sulfates.

Table 5.1-1, SDAB Attainment Classification, summarizes the SDAB's federal and state attainment designations for each of the criteria pollutants.

**Table 5.1-1  
SDAB Attainment Classification**

Pollutant	Federal Designation <sup>a</sup>	State Designation <sup>b</sup>
O <sub>3</sub> (1-hour)	Attainment (Maintenance) <sup>1</sup>	Nonattainment
O <sub>3</sub> (8-hour – 1997) (8-hour – 2008)	Attainment (Maintenance) Nonattainment (Moderate)	Nonattainment
CO	Unclassifiable/Attainment <sup>2</sup>	Attainment
PM <sub>10</sub>	Unclassifiable/Attainment	Nonattainment
PM <sub>2.5</sub>	Unclassifiable/Attainment	Nonattainment
NO <sub>2</sub>	Unclassifiable/Attainment	Attainment
SO <sub>2</sub>	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(no federal standard)	Attainment
Hydrogen sulfide	(no federal standard)	Unclassified
Visibility-reducing particles	(no federal standard)	Unclassified

**Sources:**

<sup>a</sup> EPA 2014

<sup>b</sup> CARB 2016b.

**Notes:**

<sup>1</sup> The federal 1-hour standard of 0.12 parts per million (ppm) was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in SIPs.

<sup>2</sup> The western and central portions of the SDAB are designated attainment, while the eastern portion is designated unclassifiable/ attainment.

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## 5.2 Air Quality Monitoring Data

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The SDAPCD monitors air quality conditions at 10 locations throughout the basin. The Overland Avenue monitoring station represents the closest monitoring station to the Project for concentrations for all pollutants except CO and SO<sub>2</sub>. The downtown San Diego monitoring station at Beardsley Street is the most representative location where CO concentrations are monitored and the Redwood Avenue monitoring station for SO<sub>2</sub>. Ambient concentrations of pollutants from 2013 through 2015 are presented in Table 5.2-1, Ambient Air Quality Data. The number of days exceeding the ozone AAQS is shown in Table 5.2-2, Frequency of Air Quality Standard Violations; no AAQS for other pollutants were reported during the monitoring period. The state 8-hour O<sub>3</sub> standard was exceeded in 2013 and 2014, and the state 1-hour O<sub>3</sub> standard was exceeded in 2014, while the federal 8-hour O<sub>3</sub> standard was exceeded in 2014. Air quality within the Project region was in compliance with both CAAQS and NAAQS for NO<sub>2</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub> during this monitoring period.

**Table 5.2-1  
Ambient Air Quality Data**

Pollutant	Averaging Time	2013	2104	2015	Most Stringent Ambient Air Quality Standard	Monitoring Station
O <sub>3</sub>	8 hours	0.071 ppm	0.082 ppm	0.070 ppm	0.070 ppm	Kearny Villa Road
	-hour	0.081 ppm	0.099 ppm	0.077 ppm	0.090 ppm	
PM <sub>10</sub>	Annual	20.0 µg/m <sup>3</sup>	19.5 µg/m <sup>3</sup>	16.7 µg/m <sup>3</sup>	20 µg/m <sup>3</sup>	Kearny Villa Road
	24 hours	39.0 µg/m <sup>3</sup>	39.0 µg/m <sup>3</sup>	39.0 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>	
PM <sub>2.5</sub>	Annual	8.3 µg/m <sup>3</sup>	8.1 µg/m <sup>3</sup>	7.2 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>	Kearny Villa Road
	24 hours	22.0 µg/m <sup>3</sup>	20.2 µg/m <sup>3</sup>	25.7 µg/m <sup>3</sup>	35 µg/m <sup>3</sup>	
NO <sub>2</sub>	Annual	0.011 ppm	0.010 ppm	0.090 ppm	0.030 ppm	Kearny Villa Road
	1 hour	0.067 ppm	0.051 ppm	0.051 ppm	0.180 ppm	
CO	8 hours*	2.10 ppm	1.90 ppm	1.90 ppm	9.0 ppm	Beardsley Street
	1 hour*	3.0 ppm	2.7 ppm	2.6 ppm	20 ppm	
SO <sub>2</sub>	Annual*	0.00014 ppm	0.00014 ppm	0.00011 ppm	0.030 ppm	Redwood Avenue
	24 hours*	0.0006 ppm	0.0003 ppm	0.0004 ppm	0.040 ppm	

ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter

Sources: CARB 2016c; EPA 2016.

Data represent maximum values.

\* Data were taken from EPA 2016.

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**Table 5.2-2**  
**Frequency of Air Quality Standard Violations**

Monitoring Site	Year	Number of Days Exceeding Standard		
		State 1-Hour O <sub>3</sub>	State 8-Hour O <sub>3</sub>	National 8-Hour O <sub>3</sub>
Overland Avenue	2013	0	1	0
	2014	1	4	1
	2015	0	0	0

Source: CARB 2016c.

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## 6 THRESHOLDS OF SIGNIFICANCE

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), which provides guidance that a project would have a significant environmental impact if it would:

1. Conflict with or obstruct the implementation of the applicable air quality plan;
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O<sub>3</sub> precursors);
4. Expose sensitive receptors to substantial pollutant concentrations; or
5. Create objectionable odors affecting a substantial number of people.

### 6.1 SDAPCD

As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources. The SDAPCD sets forth quantitative emission thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 6.1-1, SDAPCD Air Quality Significance Thresholds, are exceeded.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would or would not result in a significant impact to air quality.

**Table 6.1-1  
SDAPCD Air Quality Significance Thresholds**

Construction Emissions	
<i>Pollutant</i>	<i>Total Emissions (pounds per day)</i>
Respirable particulate matter (PM <sub>10</sub> )	100
Fine particulate matter (PM <sub>2.5</sub> )	55
Oxides of nitrogen (NO <sub>x</sub> )	250
Oxides of sulfur (SO <sub>x</sub> )	250
Carbon monoxide (CO)	550
Volatile organic compounds (VOC)	137*

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**Table 6.1-1  
SDAPCD Air Quality Significance Thresholds**

Operational Emissions			
<i>Pollutant</i>	<i>Total Emissions</i>		
	<i>Pounds per Hour</i>	<i>Pounds per Day</i>	<i>Tons per Year</i>
Respirable particulate matter (PM <sub>10</sub> )	—	100	15
Fine particulate matter (PM <sub>2.5</sub> )	—	55	10
Oxides of nitrogen (NO <sub>x</sub> )	25	250	40
Sulfur oxides (SO <sub>x</sub> )	25	250	40
Carbon monoxide (CO)	100	550	100
Lead and lead compounds	—	3.2	0.6
Volatile organic compounds (VOC)	—	137*	13.7

**Sources:** City of San Diego 2016; SDAPCD 2016.

\* VOC threshold based on the significance thresholds recommended by the Monterey Bay Unified Air Pollution Control District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for O<sub>3</sub>.

The thresholds listed in Table 6.1-1 represent screening-level thresholds that can be used to evaluate whether Project-related emissions would cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the Project’s total air quality impacts result in ground-level concentrations that are below the CAAQS and NAAQS, including appropriate background levels. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 6.1-1, the Project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

According to the SDAPCD Supplemental Guidelines for Submission of Air Toxics “Hot Spots” Program Health Risk Assessments (HRAs) (SDAPCD 2015b), a project is deemed to have a significant risk if the health risk assessment (HRA) shows that the off-site cancer risk exceeds 10 in a million or the non-cancer chronic health hazard index exceeds 1.

SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person (SDAPCD 1976). A project that includes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

## 6.2 City of San Diego

To determine the significance of the Project’s emissions on the environment, the City’s Significance Determination Thresholds (City of San Diego 2016) were used. The City’s



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thresholds are consistent with the thresholds contained in Appendix G of CEQA Guidelines, with the addition of the following threshold:

- Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.<sup>2</sup>

The potential for the Project to release substantial quantities of air contaminants under the aforementioned threshold is addressed in the analysis of the Project-generated criteria air pollutant emissions, TAC emissions, and odors, as appropriate, in Section 7, Impacts.

The SDAPCD Air Quality Significance Threshold shown in Table 6.1-1 were used to determine significance of Project-generated construction and operational criteria air pollutants; specifically, the Project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation (as assessed under the threshold criterion 2). In regards to the analysis of potential impacts to sensitive receptors, the City specifically recommends consideration of sensitive receptors in locations such as day care centers, schools, retirement homes, and hospitals, or medical patients in residential homes close to major roadways or stationary sources, which could be impacted by air pollutants. The City of San Diego also states that the significance of potential odor impacts should be determined based on what is known about the quantity of the odor compound(s) that would result from the project's proposed use(s), the types of neighboring uses potentially affected, the distance(s) between the project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentration(s) at the receptors.

The air quality section of the Significance Determination Thresholds recognizes attainment status designations for the SDAB and its nonattainment status for both ozone and particulate matter. As such, the document recognizes that all new projects should include measures, pursuant to CEQA, to reduce project-related ozone and particulate matter emissions to ensure new development does not contribute to San Diego's nonattainment status for these pollutants.

### 6.3 NEPA Considerations

As part of its National Environmental Policy Act (NEPA) review, the Bureau of Reclamation considers whether the project would be in conformance with the CAA. A General Conformity Determination under the CAA is part of a NEPA review. As such, a quantitative evaluation of

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<sup>2</sup> San Diego Municipal Code, Chapter 14, Article 2, Division 7, — Off-Site Development Impact Regulations paragraph 142.0710 — Air Contaminant Regulations, which states: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located." (Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

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construction and operational emissions was conducted and evaluated against the federal *de minimis* thresholds listed in Table 4.1-1 to determine whether implementation of the No Project/No Action Alternative, Miramar Reservoir Alternative, or San Vicente Reservoir Alternative would result in an adverse effect. Because the Project area is located within the SDAB, which is in nonattainment for O<sub>3</sub> and a maintenance area for carbon monoxide, conformity determination requirements do apply. If a project's emissions would exceed the *de minimis* thresholds for CO, NO<sub>x</sub>, or VOCs (100 tons per year), the project would be considered to have a significant impact related to O<sub>3</sub>.

## 7 IMPACTS

### 7.1 Conflict With or Obstruct the Implementation of the Applicable Air Quality Plan

As stated in Section 4.3, the SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the AAQS in the SDAB; specifically, the SIP and RAQS.<sup>3</sup> The federal O<sub>3</sub> maintenance plan, which is part of the SIP, was adopted in 2012. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2009). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in county, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by San Diego County and the cities in the County as part of the development of their general plans.

If a proposed project involves development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. The North City Project may potentially be inconsistent with the existing zoning and General Plan land use designations for one or more of the Project component locations in each jurisdiction in which the Project would occur. However, the Project would neither include a residential component that would increase local population growth, nor provide additional water supplies that would result in growth-inducing effects; rather, the Project would provide a replacement water source for the City of San Diego's existing water supply.

Implementation of the Project would result in an increase in employment of 60 personnel to operate the facilities. The SANDAG Regional Comprehensive Plan, adopted in 2004, included a public facilities goal to "have a diversified water supply with a broad range of water resources including water recycling" (SANDAG 2004). To achieve their objective to "ensure a safe, sufficient, reliable, and cost-effective water supply for the San Diego Region," the Regional Comprehensive Plan further states as one of the recommended actions pursuant to

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<sup>3</sup> For the purpose of this discussion, the relevant federal air quality plan is the ozone maintenance plan (SDAPCD 2012). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

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this objective is to “maximize water resources through diversification strategies such as transfer agreements, water recycling and reclamation, seawater desalination, and sustainable groundwater development” (SANDAG 2004). Accordingly, it is reasonable to assume that the associated increase in employees to achieve the goal of diversifying water supplies using recycling and reclamation was included in the overall future growth projections for the region. San Diego County’s population and employment base have grown and are expected to continue to grow at moderate rates. The County’s population is projected to grow to 3.8 million by 2030, an additional increase of approximately 35.7% (SANDAG 2015). Because the County’s employment base is projected to grow and Project facilities and associated employment positions would be introduced incrementally over the Project’s 4-year implementation period, new employees associated with the Project facilities would be gradually accommodated by the local population (i.e., within the City or County) and thus, would be included in the future growth projections for the County. Also, the addition of 60 employees to a regional population of 1.3 million residents is not considered a substantial increase in employment population such that implementation of local air quality strategies and air quality attainment goals cannot be achieved. However, it is too speculative to conclude that all employees would be local. As stated earlier, the Project does not include a residential component and the availability of water from the Project is not anticipated to have a substantial effect on growth planning within the City of San Diego.

The anticipated increase in the local employment base of 60 employees and associated vehicle source emissions is not anticipated to result in air quality impacts that were not envisioned in the growth projections and regional air quality strategies, and this minor increase in employment in the region would not obstruct or impede implementation of local air quality plans. Based on the nature of the proposed water utilities infrastructure improvements, and the incremental and gradual introduction of these new facilities and associated employment positions, implementation of the Project would not result in development in excess of that anticipated in local plans or increases in population/housing growth beyond those contemplated by SANDAG. As such, vehicle trip generation and planned development for the various Project component locations is considered to be anticipated in the SIP and RAQS. Because the proposed land uses and associated vehicle trips are anticipated in local air quality plans, the Project would be consistent at a regional level with the underlying growth forecasts in the RAQS. Impacts would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for the Miramar Reservoir Alternative or the San Vicente Reservoir Alternative.

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## Level of Significance After Mitigation

Impacts associated with the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative would be less than significant without mitigation.

## 7.2 Violate Any Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation

### 7.2.1 Construction Impacts

#### 7.2.1.1 General Approach and Methodology

Construction of the Project components would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions would primarily result from grading and site preparation activities. NO<sub>x</sub> and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Emissions from the construction phase of Project components were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.1, available online ([www.caleemod.com](http://www.caleemod.com)). For the purposes of modeling, it was assumed that construction of Project components would commence in November 2018, and final facilities may come online as late as March 2022. It is anticipated that the 30 MGD “buildout” of the Project would be completed during this time.

Table 7.2-1 provides the construction timeline and potential phasing of the components that would come online to achieve the target milestones. The construction schedule has been developed based on available information provided by the City, typical construction practices, and best engineering judgment. Construction phasing is intended to represent a schedule of anticipated activities for use in estimating potential Project-generated construction emissions.

**Table 7.2-1**  
**North City Construction Phasing Assumptions**

Project Component	Construction Start Date	Construction End Date
<i>Project Components Common to Alternatives</i>		
NCWRP Expansion	10/1/2018	12/6/2021
NCPWF Influent Pump Station	1/7/2019	10/21/2021
Morena Pump Station and Pipelines	4/2/2019	10/7/2021

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**Table 7.2-1  
North City Construction Phasing Assumptions**

Project Component	Construction Start Date	Construction End Date
MBC Improvements	4/24/2019	10/20/2021
North City Pump Station	5/21/2019	11/22/2021
NCPWF	10/1/2018	11/4/2021
North City Renewable Energy Facility	3/2/2020	12/5/2021
LFG Pipeline	3/2/2020	10/5/2021
<i>Miramar Reservoir Alternative</i>		
North City Pipeline	11/14/2018	10/22/2021
Dechlorination Facility	1/7/2019	10/22/2021
Miramar WTP Plant Improvements	7/24/2020	9/21/2021
<i>San Vicente Reservoir Alternative</i>		
San Vicente Pipeline	12/3/2018	5/18/2021
Mission Trails Booster Station	5/9/2019	9/13/2021

Equipment mix for construction of the North City Project was provided by the Project applicant. The equipment mix assumptions were based on Project design documents, review of related projects conducted in the Southern California area, and CalEEMod default equipment, where appropriate. The equipment mix is meant to represent a reasonably conservative estimate of construction activity. For the analysis, it is generally assumed that heavy construction equipment would be operating at the site for approximately 8 hours per day, 5 days per week. Default assumptions provided in CalEEMod were utilized to determine worker trips for each potential construction phase during pipeline, pump station, and facility construction. Generally, one worker per piece of construction equipment, a foreman, and several additional workers would be anticipated on a daily basis. Additionally, it was assumed that approximately two vendor trucks per day would be required for general material deliveries, and approximately five haul trucks per day would be required for backfill/slurry deliveries and soil export. The default CalEEMod trip distance for construction vehicles was assumed, which was a one-way distance of 10.8 miles for worker trips, 7.3 miles for vendor trips, and 20 miles for haul trips. To conservatively estimate potential daily emissions, it was assumed pipelines and force main facilities would be constructed simultaneously with other construction components including pump stations and treatment facilities.

Construction of Project components would be subject to SDAPCD Rule 55 – Fugitive Dust Control. This rule requires that construction of Project components include steps to restrict visible emissions of fugitive dust beyond the property line (SDAPCD 2009b). Compliance with Rule 55 would limit fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) that may be generated during grading and construction activities. Construction of Project components would also be subject to

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SDAPCD Rule 67.0.1 – Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015a).

### **Pipelines**

Pipeline construction would require both open-trench construction and trenchless tunneling depending on the location of the pipeline to be installed. A description of construction activities and equipment associated with each of these methods is provided.

#### ***Open Trench***

Open-trench construction would involve an open trench to be dug for the direct installation of pipeline. The sequence of activities for open-trench pipeline construction would typically commence with trenching and excavation, followed by pipe installation and covering of the installed pipe, and concluding with paving the pipeline corridor area of disturbance. For the purposes of quantifying emissions from daily construction activity associated with pipeline construction, it was assumed that each contractor would complete construction of approximately 75 linear feet of pipeline per day; however, daily activity and linear feet installed would vary depending on field conditions, site/easement access, and other factors associated with continual site location changes. Assuming concurrent construction by two contractors, approximately 150 linear feet of pipeline installation could occur each day depending on the component under construction and total linear feet of pipeline or conveyance infrastructure to be constructed over a given period.<sup>4</sup> For the purposes of modeling, it was assumed that paving activities would occur for approximately 2 weeks every 6 months over a given construction period throughout the pipeline installation phases. It was also assumed that after pipe installation is completed, a portion of the paved roads would require light grading and reapplication of pavement, which was assumed to occur during the last month of pipeline construction for each Project component. In addition, for the purposes of estimating emissions, it was assumed that typical open trench construction phasing would occur as follows:

- Trenching and excavation would be ongoing throughout pipeline construction phase.
- Pipe installation would occur intermittently as trenching and excavation activities occur throughout the pipeline construction phase.

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<sup>4</sup> Linear feet per day assumptions based on typical construction practices for pipeline construction.

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- Paving, intermittent, would occur approximately 2 weeks every 6 months for duration of pipeline construction.
- Final paving would occur for 1 month at the end of the construction phase.

Due to the length of the alignment, it was assumed that two contractors would potentially be required for construction of the North City Project.

### ***Trenchless Tunneling***

Trenchless tunneling would involve the excavation of a portal at either end of the pipeline segment to be installed, where the pipeline would be fed through and connected. The sequence of activities for trenchless tunneling construction would typically commence with site preparation of the first portal location followed by excavation of the portal. Excavation of the tunnel would occur following portal excavation. It is assumed all excavated material would be hauled off site. The second portal location would then be prepped and excavated. Installation of pipeline would occur once the tunnel has been fully excavated and portals are clear. The pipeline would then be connected, and the portal sites would be restored to their pre-construction condition. Trenchless tunneling practices would be employed for the specific segments of other pipeline alignments such as freeway or waterway crossings or within avoidance areas where ground disturbance (i.e., an open trench) is not permitted such as wetlands or other environmentally sensitive locations.

For the purposes of estimating emissions, it was assumed that typical construction phasing would occur as follows during tunneling:

- Site preparation at first portal site
- Excavation of first portal site
- Tunnel excavation
- Site preparation at second portal site
- Excavation of second portal site
- Pipeline installation
- Pipeline connection
- Site restoration

### **Pump Stations and Treatment Facilities**

For the purposes of estimating emissions, construction timelines vary based on the type of feature and are summarized in the tables below.



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### 7.2.1.2 Common Project Components Construction Assumptions

#### 7.2.1.2.1 North City Water Reclamation Plant Expansion

To ensure the 30 MGD of purified water can be produced at the NCPWF, the NCWRP will undergo an expansion of the primary, secondary, and tertiary treatment processes as well as the corresponding support systems. The proposed construction equipment for the NCWRP Expansion is shown in Table 7.2-2.

**Table 7.2-2  
Construction Scenario Assumptions – NCWRP Expansion**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition (107 days)	16	0	0	Saws	1	8
				Dumpers/Tenders	1	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
Grading/trenching (150 days)	16	0	1,009	Dumpers/Tenders	2	8
				Excavators	2	8
				Plate Compactors	2	8
Building construction (428 days)	102	40	0	Cement and Mortar Mixers	1	8
				Cranes	1	8
				Pumps	1	8
				Tractors/loaders/backhoes	1	8
				Welders	1	8
Paving (107 days)	16	0	0	Dumpers/Tenders	1	8
				Pavers	1	8
				Rollers	1	8
Architectural coating (107 days)	20	0	0	Air compressors	1	8
				Cranes	1	8

Source: See Appendix A for details.

#### 7.2.1.2.2 North City Pure Water Facility Influent Pump Station

The NCPWF Influent Pump Station will be constructed at the NCWRP and will convey tertiary effluent from the NCWRP to the NCPWF. The NCPWF Influent Pump Station will have a maximum capacity of 42.5 MGD to enable the NCPWF to produce 30 MGD of purified water after accounting for recycle and other streams. The proposed construction equipment for the NCPWF Influent Pump Station and pipelines are shown in Table 7.2-3.

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**Table 7.2-3  
Construction Scenario Assumptions – NCPWF Influent Pump Station**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition (21 days)	10	0	0	Saws	1	8
				Dumpers/Tenders	2	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
Grading (97 days)	10	0	63	Dumpers/Tenders	2	8
				Excavators	2	8
				Plate Compactors	2	8
Building construction (260 days)	100	6	0	Cement and Mortar Mixers	1	8
				Cranes	1	8
				Pumps	1	8
				Tractors/loaders/backhoes	1	8
				Welders	1	8
Paving (80 days)	18	0	0	Dumpers/Tenders	1	8
				Pavers	1	8
				Rollers	1	8
Architectural coating (14 days)	6	0	0	Air compressors	1	8
				Cranes	2	8

Source: See Appendix A for details.

### 7.2.1.2.3 Morena Pump Station and Pipelines

#### Morena Pump Station

The Morena Pump Station and Wastewater Forcemain are proposed to deliver maximum flow of 37.7 MGD of raw wastewater to the NCWRP, expanding the NCWRP’s production capacity from 30 MGD to 54 MGD in dry weather conditions. The assumed construction equipment for the Morena Pump Station is shown in Table 7.2-4.

**Table 7.2-4  
Construction Scenario Assumptions – Morena Pump Station**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition (45 days)	14	0	0	Saws	1	8
				Dumpers/Tenders	2	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8

## Air Quality Technical Report for the North City Project

**Table 7.2-4  
Construction Scenario Assumptions – Morena Pump Station**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Grading/trenching (90 days)	16	0	400	Dumpers/Tenders	2	8
				Excavators	2	8
				Plate Compactors	2	8
Building construction (180 days)	16	2	0	Cement and Mortar Mixers	1	8
				Cranes	1	8
				Pumps	1	8
				Tractors/Loaders/Backhoes	1	8
				Welders	1	8
Paving (14 days)	16	0	0	Paving Equipment	1	8
				Pavers	1	8
				Rollers	1	8
Architectural coating (7 days)	8	0	0	Air Compressors	1	8
				Cranes	1	8

Source: See Appendix A for details.

### Morena Pipelines

Off-site infrastructure of the pump station facility, excluding the Wastewater Forcemain and Brine/Centrates Line, consists of a storm drainage line, pump station inflow piping, overflow piping, and associated subgrade diversion structures. The proposed Morena Pipeline alignment and type of construction is shown in Table 7.2-5. The proposed construction equipment for the trenched portion of the Morena Pipelines is shown in Table 7.2-6, and the construction equipment for the tunneling sections of the Morena Pipelines is shown in Table 7.2-7.

**Table 7.2-5  
Morena Pipeline Alignment Summary**

Segment	Horizontal Distance (LF)	Open Cut (LF)	Trenchless or Other Method (LF)
48-in forcemain and 24-in brine/centrate line	50,890	50,890	—
Tecolote Road Bridge and Creek	395	—	395
San Clamete Canyon Bridge	510	—	510
SR-52	1,510	—	1,510
MTS Railroad Tracks	300	—	300
Judicial Drive Intersection	290	—	290
I-805	1,100	—	1,100
<i>Trenchless Subtotal</i>	<i>4,105</i>	<i>—</i>	<i>4,105</i>
<b>Total</b>	<b>54,995 (10.4 miles)</b>	<b>50,890</b>	<b>4,105</b>

Notes: LF = linear feet; in = inch

# Air Quality Technical Report for the North City Project

**Table 7.2-6  
Construction Scenario Assumptions – Morena Pipelines Trenched Sections**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Trenching (200 days)	26	0	5,154	Excavators	2	8
				Rubber-Tired Dozers	2	8
				Tractors/Loaders/Backhoes	4	8
				Trenchers	2	8
Pipeline Installation and Backfill (200 days)	16	2	0	Forklifts	2	8
				Cranes	2	8
				Tractors/Loaders/Backhoes	2	8
Paving (200 days)	16	0	0	Paving Equipment	2	8
				Pavers	2	8
				Rollers	2	8

Source: See Appendix A for details.

**Table 7.2-7  
Construction Scenario Assumptions – Morena Pipelines Trenchless Sections**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site Preparation at Portal Sites (25 days)	8	0	0	Graders	1	8
				Scrapers	1	8
				Tractors/Loaders/Backhoes	1	8
Portal Excavation (150 days)	16	0	0	Crushing Equipment	1	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
				Tractors/loaders/backhoes	1	8
				Trenchers	1	8
Tunnel Excavation (190 days)	26	2	0	Crushing Equipment	1	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	1	8
				Trenchers	1	8
Site Restoration (150 days)	4	0	0	Tractors/Loaders/Backhoes	1	8

Source: See Appendix A for details.

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### 7.2.1.2.4 Metro Biosolids Center Improvements

Diverting additional wastewater flows to the NCWRP ultimately changes the relative contribution of biosolids received at the MBC from the NCWRP and the Point Loma WWTP. The anticipated construction details for the MBC improvements are shown in Table 7.2-8.

**Table 7.2-8  
Construction Scenario Assumptions – MBC Improvements**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition (15 days)	10	0	0	Concrete/Industrial Saws	1	8
				Dumpers/Tenders	2	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
Grading (30 days)	10	0	0	Dumpers/Tenders	2	8
				Excavators	2	8
				Plate Compactors	2	8
Construction (200 days)	16	2	0	Cement and Mortar Mixers	1	8
				Cranes	1	8
				Pumps	1	8
				Tractors/Loaders/Backhoes	1	8
				Welders	1	8
Paving (7 days)	18	2	0	Pavers	1	8
				Paving Equipment	1	8
				Rollers	1	8

Source: See Appendix A for details.

### 7.2.1.2.5 North City Pump Station

The North City Pump Station will be constructed on the same site as the NCPWF. Any grading associated with the NCPWF will be captured in that phase. The anticipated construction equipment for the North City Pump Station is shown in Table 7.2-9.

**Table 7.2-9  
Construction Scenario Assumptions – North City Pump Station**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Grading (15 days)	14	0	0	Excavators	1	8
				Rubber-Tired Dozers	2	8
				Tractors/Loaders/Backhoes	2	8

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**Table 7.2-9  
Construction Scenario Assumptions – North City Pump Station**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Trenching (50 days)	26	0	0	Concrete/Industrial Saws	1	8
				Excavators	2	8
				Off-Highway Trucks	1	8
				Rollers	2	8
				Tractors/Loaders/Backhoes	2	8
				Welders	2	8
Building construction (230 days)	26	2	0	Aerial Lifts	2	8
				Cranes	1	8
				Forklifts	2	8
				Rollers	1	8
				Tractors/Loaders/Backhoes	1	8
				Welders	2	8
Paving (5 days)	18	0	0	Crushing/Proc. Equipment	1	8
				Off-Highway Trucks	1	8
				Pavers	1	8
				Rollers	2	8
				Tractors/Loaders/Backhoes	2	8

Source: See Appendix A for details.

### 7.2.1.2.6 North City Renewable Energy Facility and Landfill Gas Pipeline

The proposed renewable energy facility will require construction of a main building for the six ICEs, a control equipment building, and storage building. The facility would also require the installation of a new 12-inch-diameter gas line from the City's Miramar Landfill to the NCWRP. The proposed construction equipment for the new renewable energy facility phase of construction is shown in Table 7.2-10, and the proposed construction equipment for LFG Pipeline trenched and trenchless sections are provided in Tables 7.2-11 and 7.2-12, respectively.

**Table 7.2-10  
Construction Scenario Assumptions – North City Renewable Energy Facility**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition (10 days)	10	0	14	Concrete/Industrial Saws	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	8

# Air Quality Technical Report for the North City Project

**Table 7.2-10  
Construction Scenario Assumptions – North City Renewable Energy Facility**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Grading (10 days)	10	0	0	Concrete/Industrial Saws	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	8
Building Construction (300 days)	8	4	0	Cranes	1	8
				Forklifts	2	8
				Tractors/Loaders/Backhoes	2	8
Paving (10 days)	18	0	0	Cement and Mortar Mixers	4	8
				Pavers	1	8
				Rollers	1	8
				Tractors/Loaders/Backhoes	1	8

Source: See Appendix A for details.

**Table 7.2-11  
Construction Scenario Assumptions – LFG Pipeline Trenched Sections**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Trenching (135 days)	26	0	50	Excavators	2	8
				Rubber-Tired Dozers	2	8
				Tractors/Loaders/Backhoes	4	8
				Trenchers	2	8
Pipeline Installation and Backfill (135 days)	16	2	0	Forklifts	2	8
				Cranes	2	8
				Tractors/Loaders/Backhoes	2	8
Paving (134 days)	16	0	0	Paving Equipment	2	8
				Pavers	2	8
				Rollers	2	8

Source: See Appendix A for details.

**Table 7.2-12  
Construction Scenario Assumptions – LFG Pipeline Trenchless Sections**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site Preparation at Portal Sites (20 days)	8	0	0	Graders	1	8
				Scrapers	1	8
				Tractors/Loaders/Backhoes	1	8

# Air Quality Technical Report for the North City Project

**Table 7.2-12  
Construction Scenario Assumptions – LFG Pipeline Trenchless Sections**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Portal Excavation (120 days)	16	0	0	Crushing Equipment	1	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	1	8
				Trenchers	1	8
Tunnel Excavation (157 days)	26	2	0	Crushing Equipment	1	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	1	8
				Trenchers	1	8
Site Restoration (120 days)	4	0	0	Tractors/Loaders/Backhoes	1	8

Source: See Appendix A for details.

### 7.2.1.2.7 North City Pure Water Facility

The new NCPWF would be located on the vacant 8.7-acre City-owned lot across Eastgate Mall to the north of the NCWRP. Table 7.2-13 provides an overview of the various structures associated with the NCPWF, and Table 7.2-14 shows the proposed construction equipment associated with the Project phase.

**Table 7.2-13  
NCPWF Building Components**

Building Name	Footprint (Square Feet)
O&M	15,500
Ozone Generating Building	5,795
Ozone Contactor	5,408.5
BAC Building	10,823
Process Building (includes MF, RO, UV/AOP)	112,500
Main Electrical Building	3,545
Liquid Oxygen Facility	1,680
RO Feed Tank	4,961
Product Water Tank	5,850
CO <sub>2</sub> System	795.6
Lime System	1,668.24
Chemical Systems	10,942.08
<b>Total</b>	<b>322,468.42</b>



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**Table 7.2-14  
Construction Scenario Assumptions – NCPWF**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Mass Grading (60 days)	36	0	1,125	Excavators	1	8
				Graders	2	8
				Off-Highway Trucks	1	8
				Plate Compactors	2	8
				Rubber-Tired Dozers	2	8
				Scrapers	4	8
				Tractors/Loaders/Backhoes	2	8
Finish Grading (141 days)	18	0	1,125	Graders	1	8
				Off-Highway Trucks	1	8
				Plate Compactors	2	8
				Scrapers	1	8
				Tractors/Loaders/Backhoes	2	8
Building construction (563 days)	136	54	0	Aerial Lifts	2	8
				Cranes	2	8
				Forklifts	2	8
				Rollers	2	8
				Tractors/Loaders/Backhoes	2	8
				Welders	2	8
Paving (10 days)	24	0	0	Crushing/Proc. Equipment	1	8
				Off-Highway Trucks	1	8
				Pavers	2	8
				Paving Equipment	1	8
				Rollers	2	8
				Tractors/Loaders/Backhoes	2	8
Architectural coating (141 days)	28	0	0	Aerial Lifts	1	8

Source: See Appendix A for details.

### 7.2.1.3 Miramar Reservoir Alternative Construction Emissions

The Miramar Reservoir Alternative includes (1) a new pump station at Morena Boulevard, a wastewater forcemain, and brine/centrate pipeline (Morena Pump Station and Pipelines); (2) expansion of the existing NCWRP; (3) construction of a new influent pump station at NCWRP and conveyance pipeline between NCWRP and the NCPWF (NCPWF Influent Pump Station); (4) construction of the new NCPWF–Miramar Reservoir; (5) construction of a new North City Pump Station; (6) construction of a North City Pure Water Pipeline; (7) construction of a renewable energy facility and LFG Pipeline; (8) upgrades at the MBC; and (9) improvements at the Miramar WTP.

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### 7.2.1.3.1 North City Pure Water Pipeline

The North City Pipeline will be designed for an average daily flow of 30 MGD with a minimum daily flow of 23 MGD and a maximum daily flow of 33 MGD. Table 7.2-15 provides a summary of each segment, the length, the anticipated construction method, location of the pipeline in the right-of-way, and easement or City property as a percentage of the segment length. The proposed construction equipment for the North City Pipeline is shown in Tables 7.2-16 and 7.2-17.

**Table 7.2-15  
North City Pure Water Pipeline Alignment Summary**

Segment		Horizontal Distance (LF)	Open Cut (LF)	Trenchless or Other Method (LF)
A	West Alignment: Miramar Road	25,700	25,186	514
B	West Alignment: Black Mountain Road	4,100	2,911	1,189
C	I-15 Crossing	1,340	925	415
D	East Alignment: Carroll Canyon Road	4,285	4,242	43
E	East Alignment: Approach to Miramar	4,300	3,354	946
<i>Subtotal</i>		<i>39,725</i>	<i>36,618</i>	<i>3,107</i>
F	Subaqueous Discharge	4,800	—	—
<b>Total</b>		<b>44,525 (8.4 miles)</b>	<b>—</b>	<b>—</b>

Source: LF = linear feet

**Table 7.2-16  
Construction Scenario Assumptions – North City Pure Water Pipeline Open Trench**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Trenching (200 days)	26	0	2,537	Concrete/Industrial Saws	1	8
				Excavators	2	8
				Off-Highway Trucks	1	8
				Rollers	2	8
				Tractors/Loaders/Backhoes	2	8
				Welders	2	8
Tunneling (200 days)	24	0	0	Bore/Drill Rigs	1	8
				Cranes	1	8
				Crushing/Proc. Equipment	1	8
				Generator Sets	1	8
				Off-Highway Trucks	1	8
				Tractors/Loaders/Backhoes	2	8
				Welders	2	8

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**Table 7.2-16**  
**Construction Scenario Assumptions – North City Pure Water Pipeline Open Trench**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Subaqueous Pipeline (200 days)	18	0	0	Forklifts	1	8
				Generator Sets	1	8
				Other Construction Equipment	4	8
				Tractors/Loaders/Backhoes	1	8
Paving (200 days)	18	0	0	Crushing/Proc. Equipment	1	8
				Off-Highway Trucks	1	8
				Pavers	1	8
				Rollers	2	8
				Tractors/Loaders/Backhoes	2	8

Source: See Appendix A for details.

**Table 7.2-17**  
**Construction Scenario Assumptions – North City Pure Water Pipeline Trenchless**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site Preparation at Portal Sites (100 days)	8	0	0	Graders	1	8
				Scrapers	1	8
				Tractors/Loaders/Backhoes	1	8
Portal Excavation (100 days)	14	0	0	Crushing/Proc. Equipment	1	8
				Excavators	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	1	8
				Trenchers	1	8
Pipe Installation (100 days)	2	2	0	Cranes	1	8
				Tractors/Loaders/Backhoes	1	8
				Welders	2	8
Pipe Connection (100 days)	2	0	0	Other General Industrial Equipment	1	8
Site Restoration (100 days)	4	0	0	Tractors/Loaders/Backhoes	1	8

Source: See Appendix A for details.

### 7.2.1.3.2 Pure Water Dechlorination Facility

A Dechlorination Facility will be located at the end of Meanley Drive off the cul-de-sac on the City's property for the Miramar Recycled Water Storage Tank. The proposed construction equipment for the Dechlorination Facility is shown in Table 7.2-18.

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**Table 7.2-18  
Construction Scenario Assumptions – Pure Water Dechlorination Facility**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Grading (60 days)	16	0	0	Dumpers/Tenders	2	8
				Excavators	2	8
				Plate Compactors	2	8
Building construction (90 days)	100	10	0	Cement and Mortar Mixers	1	8
				Cranes	1	8
				Pumps	1	8
				Tractors/Loaders/Backhoes	1	8
				Welders	1	8
Paving (7 days)	16	0	0	Dumpers/Tenders	1	8
				Pavers	1	8
				Rollers	1	8

Source: See Appendix A for details.

### 7.2.1.3.3 Miramar Water Treatment Plant Improvements

Under the Miramar Reservoir Alternative, purified water discharged into the Miramar Reservoir will be pumped to the existing Miramar Reservoir Pump Station to the Miramar WTP for treatment and eventual distribution. The construction assumptions for the Miramar WTP are shown in Table 7.2-19.

**Table 7.2-19  
Construction Scenario Assumptions – Miramar WTP Improvements**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Demolition (10 days)	10	0	0	Concrete/Industrial Saws	1	8
				Rubber-Tired Dozers	1	8
				Tractors/Loaders/Backhoes	2	8
Building construction (60 days)	50	10	0	Aerial Lifts	1	8
				Cranes	1	8
				Forklifts	1	8
				Rollers	1	8
				Tractors/Loaders/Backhoes	1	8
				Welders	1	8

Source: See Appendix A for details.

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### 7.2.1.3.4 Miramar Reservoir Alternative Construction Emissions

Table 7.2-20, Estimated Maximum Daily Construction Emissions for the Miramar Reservoir Alternative – Unmitigated, shows the estimated maximum unmitigated daily construction emissions associated with the conceptual construction phases of the Project. As discussed above, both open-trench and trenchless construction methods were modeled for pipeline construction since each alignment is anticipated to be constructed using a combination of methods. Complete details of the emissions calculations are provided in Appendix B of this document.

**Table 7.2-20**  
**Estimated Maximum Daily Construction Emissions for the**  
**Miramar Reservoir Alternative – Unmitigated**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>Miramar Reservoir Alternative – 2018</i>						
North City Pipeline	6.09	42.26	60.24	0.09	4.36	3.01
<i>Miramar Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	9.82	62.18	99.20	0.12	6.36	5.07
NCWRP Expansion	2.95	20.80	27.94	0.04	2.35	1.36
NCPWF Influent Pump Station	2.31	14.91	19.32	0.03	2.09	1.09
MBC Improvements	2.70	19.33	25.24	0.03	2.18	1.64
North City Pump Station	3.50	27.02	31.55	0.05	13.78	8.14
NCPWF	9.42	59.69	112.25	0.14	34.06	20.03
North City Pipeline	6.69	45.69	58.06	0.09	3.87	3.06
Dechlorination Facility	2.14	13.77	15.72	0.03	1.67	0.98
<b>Total 2019</b>	<b>39.52</b>	<b>263.38</b>	<b>389.28</b>	<b>0.54</b>	<b>66.36</b>	<b>41.37</b>
<i>Miramar Reservoir Alternative – 2020</i>						
Morena Pump Station and Pipelines	15.65	60.36	87.83	0.12	22.57	8.61
NCWRP Expansion	2.24	15.38	17.69	0.04	2.24	1.08
NCPWF Influent Pump Station	6.35	14.27	18.48	0.03	1.99	1.00
LFG Pipeline	7.08	47.50	67.23	0.08	8.64	6.01
North City Renewable Energy Facility	1.97	12.74	19.26	0.02	6.25	3.66
MBC Improvements	1.56	10.72	13.24	0.02	0.81	0.68
North City Pump Station	2.39	19.89	21.35	0.04	1.29	1.11
NCPWF	3.57	26.02	32.64	0.06	2.89	1.71
North City Pipeline	4.96	33.15	40.83	0.07	2.33	2.00
Miramar WTP Improvements	1.96	12.64	18.87	0.02	1.17	0.98
<b>Total 2020</b>	<b>47.72</b>	<b>252.67</b>	<b>337.42</b>	<b>0.51</b>	<b>50.18</b>	<b>26.83</b>
<i>Miramar Reservoir Alternative – 2021</i>						
Morena Pump Station and Pipelines	3.85	32.74	35.30	0.06	2.44	1.90
NCWRP Expansion	23.76	14.79	16.11	0.04	2.14	0.98

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**Table 7.2-20**  
**Estimated Maximum Daily Construction Emissions for the**  
**Miramar Reservoir Alternative – Unmitigated**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
LFG Pipeline	5.68	45.92	51.58	0.08	4.06	2.85
NCPWF	33.26	26.97	30.41	0.06	2.94	1.60
North City Pipeline	2.45	23.98	23.83	0.04	1.51	1.25
North City Renewable Energy Facility	1.09	9.15	11.43	0.02	0.68	0.57
<b>Total 2021</b>	<b>70.10</b>	<b>153.54</b>	<b>168.66</b>	<b>0.30</b>	<b>13.77</b>	<b>9.16</b>
<i>Maximum</i>	<i>70.10</i>	<i>263.38</i>	<i>389.28</i>	<i>0.54</i>	<i>66.36</i>	<i>41.37</i>
<i>SDAPCD Threshold</i>	<i>137</i>	<i>550</i>	<i>250</i>	<i>250</i>	<i>100</i>	<i>67</i>
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix A for complete results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod.

VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-20, daily construction emissions for the Project would not exceed the City of San Diego’s significance thresholds for VOC, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. However, daily construction emissions for the Project would exceed the threshold for NO<sub>x</sub> during construction of the Project in 2019 and 2020. The annual construction emissions from the Miramar Reservoir Alternative are shown in Table 7.2-21.

**Table 7.2-21**  
**Estimated Annual Construction Emissions for the Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
<i>Miramar Reservoir Alternative – 2018</i>						
North City Pipeline	0.10	0.72	1.02	0.00	0.08	0.05
<i>Miramar Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	0.86	5.65	8.80	0.01	0.57	0.44
NCWRP Expansion	0.26	1.87	2.38	0.00	0.20	0.12
NCPWF Influent Pump Station	0.22	1.55	1.61	0.00	0.18	0.10
MBC Improvements	0.14	0.93	1.19	0.00	0.08	0.07
North City Pump Station	0.22	1.55	1.83	0.00	0.21	0.15
NCPWF	0.38	2.52	4.47	0.01	0.83	0.50
North City Pipeline	0.70	4.97	6.36	0.01	0.40	0.32
Dechlorination Facility	0.12	0.88	0.93	0.00	0.09	0.06
<b>Total 2019</b>	<b>2.89</b>	<b>19.91</b>	<b>27.56</b>	<b>0.04</b>	<b>2.56</b>	<b>1.76</b>

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**Table 7.2-21**  
**Estimated Annual Construction Emissions for the Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
<i>Miramar Reservoir Alternative – 2020</i>						
Morena Pump Station and Pipelines	0.54	3.72	4.86	0.01	0.37	0.27
NCWRP Expansion	0.28	2.01	2.32	0.01	0.29	0.14
NCPWF Influent Pump Station	0.19	1.14	1.16	0.00	0.14	0.08
LFG Pipeline	0.55	3.77	5.28	0.01	0.61	0.43
North City Renewable Energy Facility	0.14	1.06	1.45	0.00	0.12	0.09
MBC Improvements	0.06	0.40	0.48	0.00	0.03	0.02
North City Pump Station	0.14	1.06	1.19	0.00	0.08	0.06
NCPWF	0.46	3.40	4.28	0.01	0.37	0.22
North City Pipeline	0.49	3.74	4.42	0.01	0.27	0.23
Miramar WTP Improvements	0.06	0.42	0.53	0.00	0.04	0.03
<b>Total 2020</b>	<b>2.91</b>	<b>20.73</b>	<b>25.97</b>	<b>0.04</b>	<b>2.32</b>	<b>1.56</b>
<i>Miramar Reservoir Alternative – 2021</i>						
Morena Pump Station and Pipelines	0.17	1.58	1.56	0.00	0.11	0.08
NCWRP Expansion	1.24	0.95	1.05	0.00	0.11	0.06
LFG Pipeline	0.35	2.87	3.19	0.01	0.24	0.17
NCPWF	1.70	1.67	1.89	0.00	0.18	0.10
North City Pipeline	0.27	2.49	2.42	0.00	0.15	0.13
North City Renewable Energy Facility	0.06	0.51	0.62	0.00	0.04	0.03
<b>Total 2021</b>	<b>3.79</b>	<b>10.07</b>	<b>10.72</b>	<b>0.02</b>	<b>0.82</b>	<b>0.57</b>
<i>Maximum Annual Emissions</i>	3.79	20.73	27.56	0.04	2.56	1.76
<i>SDAPCD Threshold</i>	13.7	100	40	40	15	10
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix A for complete results.

**Notes:** VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-21, the Project would not exceed the City of San Diego’s annual significance thresholds for VOC, CO, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> during construction.

### 7.2.1.3.5 Mitigation Measures

Mitigation measures are necessary to reduce the levels of NO<sub>x</sub> from the proposed Miramar Alternative construction phase to below levels of significance. The following mitigation measures outline the steps necessary to reduce the construction emissions from the proposed Miramar Alternative.

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**MM-AQ-1** The following best management practices shall be implemented during construction to comply with applicable San Diego Air Pollution Control District (SDAPCD) rules and regulations, and to further reduce daily construction emissions:

- Best available control measures that could be implemented during construction to reduce particulate emissions and reduce soil erosion and trackout include the following:
  - Cover or water, as needed, any on-site stockpiles of debris, dirt, or other dusty material.
  - Use adequate water and/or other dust palliatives on all disturbed areas in order to avoid particle blow-off. Due to current drought conditions, the contractor shall consider use of a SDAPCD-approved dust suppressant where feasible to reduce the amount of water to be used for dust control. Use of recycled water in place of potable water shall also be considered provided that the use is approved by the City of San Diego and other applicable regulatory agencies prior to initiation of construction activity.<sup>5</sup> Use of recycled water shall be in compliance with all applicable City of San Diego Rules and Regulation for Recycled Water (City of San Diego 2008), particularly for the protection of public health per the California Code of Regulations, Title 22, Division 4.
  - Wash down or sweep paved streets as necessary to control trackout or fugitive dust.
  - Cover or tarp all vehicles hauling dirt or spoils on public roads if sufficient freeboard is not available to prevent material blow-off during transport.
  - Use gravel bags and catch basins during ground-disturbing operations.
  - Maintain appropriate soil moisture, apply soil binders, and/or plant stabilizing vegetation.

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<sup>5</sup> The use of recycled water for construction purposes requires approval of the City and other regulatory agencies on a case-by-case basis. The permit shall be obtained prior to beginning construction. Recycled water used for construction purposes may only be used for soil compaction during grading operations, dust control and consolidation and compaction of backfill in trenches for non-potable water, sanitary sewer, storm drain, gas and electric pipelines. Equipment operators shall be instructed about the requirements contained herein and the potential health hazards involved with the use of recycled water. Water trucks, hoses, drop tanks, etc. shall be identified as containing non-potable water and not suitable for drinking. Determinations as to specific uses to be allowed shall be in accordance with the standards set forth in Title 22, Division 4 of the California Code of Regulations and with the intent of this ordinance to preserve the public health. The City may, at its discretion, set forth specific requirements as conditions to providing such services and/or require specific approval from the appropriate regulatory agencies. (City of San Diego 2008)



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**MM-AQ-2** The following measures shall be adhered to during construction activities associated with the Project to reduce oxides of nitrogen (NO<sub>x</sub>):

- a. All diesel-fueled construction equipment shall be equipped with Tier 3 or better (i.e., Tier 4 Interim or Tier 4 Final) diesel engines.
- b. The engine size of construction equipment shall be the minimum size suitable for the required job.
- c. Construction equipment shall be maintained in accordance with the manufacturer's specifications.

### 7.2.1.3.6 Level of Significance After Mitigation

To reduce NO<sub>x</sub> emissions during construction of the Project, implementation of mitigation measures MM-AQ-1 and MM-AQ-2 would be required for the Miramar Reservoir Alternative. Table 7.2-22 shows the estimated emissions from the Miramar Reservoir Alternative after implementing mitigation measures MM-AQ-1 and MM-AQ-2.

**Table 7.2-22  
Mitigated Maximum Daily Construction Emissions for the Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>Miramar Reservoir Alternative – 2018</i>						
North City Pipeline	2.16	46.77	40.14	0.09	3.37	2.24
<i>Miramar Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	2.81	65.31	54.48	0.12	3.82	2.93
NCWRP Expansion	1.28	21.99	16.60	0.04	2.13	0.99
NCPWF Influent Pump Station	1.11	15.38	10.34	0.03	1.87	0.90
MBC Improvements	1.44	19.74	9.47	0.03	1.30	1.00
North City Pump Station	1.31	31.11	23.89	0.05	6.20	3.68
NCPWF	3.24	66.93	63.61	0.14	16.05	9.58
North City Pipeline	2.21	50.57	41.16	0.09	2.90	2.30
Dechlorination Facility	0.95	14.25	10.72	0.03	1.44	0.79
<b>Total 2019</b>	<b>14.33</b>	<b>285.27</b>	<b>230.27</b>	<b>0.54</b>	<b>35.70</b>	<b>22.17</b>
<i>Miramar Reservoir Alternative – 2020</i>						
Morena Pump Station and Pipelines	10.41	64.25	54.13	0.12	20.64	7.06
NCWRP Expansion	1.20	16.12	13.90	0.04	2.12	0.98
NCPWF Influent Pump Station	5.12	15.06	11.09	0.03	1.86	0.90
LFG Pipeline	1.99	50.68	37.21	0.08	4.53	3.26
MBC Improvements	0.53	11.46	9.44	0.02	0.69	0.58
North City Pump Station	0.93	24.03	18.15	0.04	1.17	1.06

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**Table 7.2-22**

**Mitigated Maximum Daily Construction Emissions for the Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
NCPWF	1.71	28.02	25.34	0.06	2.64	1.55
North City Pipeline	1.92	40.67	34.75	0.07	2.17	1.92
North City Renewable Energy Facility	0.54	13.44	10.79	0.02	3.00	1.83
Miramar WTP Improvements	0.71	13.34	10.70	0.02	1.04	0.69
<b>Total 2020</b>	<b>25.08</b>	<b>277.05</b>	<b>225.50</b>	<b>0.51</b>	<b>39.85</b>	<b>19.83</b>
<i>Miramar Reservoir Alternative – 2021</i>						
Morena Pipelines	1.44	36.53	24.97	0.06	1.91	1.51
NCWRP Expansion	22.95	15.75	13.45	0.04	2.10	0.97
LFG Pipeline	2.28	52.06	36.04	0.08	3.32	2.31
NCPWF	31.68	32.78	25.72	0.06	2.91	1.66
North City Pipeline	0.96	27.06	18.16	0.04	1.25	1.08
North City Renewable Energy Facility	0.41	10.39	8.36	0.02	0.56	0.49
<b>Total 2021</b>	<b>59.72</b>	<b>174.57</b>	<b>126.69</b>	<b>0.30</b>	<b>12.06</b>	<b>8.03</b>
<i>Maximum</i>	59.72	285.27	230.27	0.54	39.85	22.17
<i>SDAPCD Threshold</i>	137	550	250	250	100	67
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix A for complete results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod.

VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

Table 7.2-22 above, shows resulting emissions when Mitigation Framework measures MM-AQ-1 and MM-AQ-2 are applied to the Miramar Reservoir Alternative. Following implementation of Mitigation Framework measures MM-AQ-1 and MM-AQ-2 to the Miramar Reservoir Alternative, construction emissions for the Project would be reduced to below a level of significance for all construction years.

### **7.2.1.4 San Vicente Reservoir Alternative Construction Emissions**

The San Vicente Reservoir Alternative would include those elements in common with the Miramar Reservoir Alternative, but with a longer pipeline and an additional pump station compared to the other Alternative. The following sections describe those components unique to the San Vicente Reservoir and the construction emission assumptions associated with each.

#### **7.2.1.4.1 San Vicente Pure Water Pipeline**

The San Vicente Pipeline will be designed for an average daily flow of 30 MGD with a minimum daily flow of 27 MGD and a maximum daily flow of 35 MGD. Table 7.2-23 provides a summary

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of the anticipated construction method and length of each type of construction. The proposed construction equipment for the San Vicente Pipeline is shown in Tables 7.2-24 and 7.2-25.

**Table 7.2-23**  
**San Vicente Pipeline Segment Construction Summary**

Construction Method	Segment Length (LF)	Diameter
Open Cut and Trenchless	39,232	48-inch
Open Cut and Trenchless	14,555	60-inch
Repurposed	20,583	48-inch
Open Cut	61,936	48-inch
Trenchless	2,801	48-inch
Trenchless (Microtunnel)	1,985	48-inch
Hard Rock Tunnel	5,446	60-inch

**Table 7.2-24**  
**Construction Scenario Assumptions – San Vicente Pipeline Open Trench**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Trenching (200 days)	26	0	13,073	Excavators	2	8
				Rubber-Tired Dozers	2	8
				Tractors/Loaders/Backhoes	4	8
				Trenchers	2	8
Pipeline Installation (200 days)	16	0	0	Tractors/Loaders/Backhoes	1	8
Paving (200 days)	16	0	0	Pavers	2	8
				Paving Equipment	2	8
				Rollers	2	8

Source: See Appendix A-B for details.

**Table 7.2-25**  
**Construction Scenario Assumptions – San Vicente Pipeline Trenchless**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Trenching (200 days)	26	0	0	Excavators	2	8
				Rubber-Tired Dozers	2	8
				Tractors/Loaders/Backhoes	4	8
				Trenchers	2	8

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**Table 7.2-25  
Construction Scenario Assumptions – San Vicente Pipeline Trenchless**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Building Construction (200 days)	14	6	0	Cranes	1	8
				Generator Sets	1	8
				Rubber-Tired Loaders	2	8
				Welders	2	8

Source: See Appendix A-B for details.

### 7.2.1.4.2 Mission Trails Booster Station

The MTBS would be located along Mission Gorge Road and sited across two privately owned parcels. The proposed construction equipment for the MTBS is shown in Table 7.2-26.

**Table 7.2-26  
Construction Scenario Assumptions – MTBS**

Construction Phase (Duration)	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Grading (30 days)	30	0	36,750	Graders	<u>21</u>	<u>84</u>
				Off-Highway Trucks	1	<u>48</u>
				Plate Compactors	1	<u>48</u>
				Rubber-Tired Dozers	<u>21</u>	<u>48</u>
				Scrapers	<u>41</u>	<u>48</u>
				Tractors/Loaders/Backhoes	2	<u>48</u>
Underground Install and Trenching (50 days)	26	0	0	Concrete/Industrial Saws	1	<u>48</u>
				Excavators	<u>21</u>	<u>48</u>
				Off-Highway Trucks	1	<u>48</u>
				Rollers	<u>21</u>	<u>48</u>
				Tractors/Loaders/Backhoes	2	<u>48</u>
				Welders	2	<u>48</u>
Building construction (230 days)	16	2	0	Aerial Lifts	2	<u>48</u>
				Cranes	1	<u>48</u>
				Forklifts	<u>21</u>	<u>48</u>
				Rollers	1	<u>48</u>
				Tractors/Loaders/Backhoes	1	<u>48</u>
				Welders	<u>21</u>	<u>48</u>
Paving (5 days)	18	0	0	Crushing/Proc. Equipment	1	<u>48</u>
				Off-Highway Trucks	1	<u>48</u>
				Pavers	1	<u>48</u>
				Rollers	<u>21</u>	<u>48</u>
				Tractors/Loaders/Backhoes	<u>21</u>	<u>48</u>

Source: See Appendix A-B for details.

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### 7.2.1.4.3 San Vicente Reservoir Alternative Total Construction Emissions

Table 7.2-27, Estimated Maximum Daily Construction Emissions for the San Vicente Reservoir Alternative – Unmitigated, shows the estimated maximum unmitigated daily construction emissions associated with the conceptual construction phases of the Project. As discussed above, both open-trench and trenchless construction methods were modeled for pipeline construction since each alignment is anticipated to be constructed using a combination of methods. Complete details of the emissions calculations are provided in Appendix B of this document.

**Table 7.2-27**  
**Estimated Maximum Daily Construction Emissions for the**  
**San Vicente Reservoir Alternative – Unmitigated**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>San Vicente Reservoir Alternative – 2018</i>						
San Vicente Pipeline	10.73	66.95	121.21	0.15	15.28	7.72
<i>San Vicente Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	9.82	62.18	99.20	0.12	6.36	5.07
NCWRP Expansion	2.95	20.80	27.94	0.04	2.35	1.36
NCPWF Influent Pump Station	2.31	14.91	19.32	0.03	2.09	1.09
MBC Improvements	2.70	19.33	25.24	0.03	2.18	1.64
North City Pump Station	3.50	27.02	31.55	0.05	13.78	8.14
NCPWF	9.42	59.69	112.25	0.14	34.06	20.03
San Vicente Pipeline	10.09	65.90	113.47	0.15	7.54	5.50
MTBS	<u>13.07</u> <del>19.84</del>	<u>97.88</u> <del>139.69</del>	<u>393.71</u> <del>472.94</del>	<u>0.98</u> <del>1.07</del>	<u>31.014</u> <del>3.34</del>	<u>10.43</u> <del>18.40</del>
<b>Total 2019</b>	<b><u>53.85</u></b> <del>60.62</del>	<b><u>367.71</u></b> <del>409.51</del>	<b><u>822.67</u></b> <del>901.91</del>	<b><u>1.56</u></b> <del>1.64</del>	<b><u>99.39</u></b> <del>141.68</del>	<b><u>53.27</u></b> <del>61.24</del>
<i>San Vicente Reservoir Alternative – 2020</i>						
Morena Pump Station and Pipelines	15.65	60.36	87.83	0.12	22.57	8.61
NCWRP Expansion	2.24	15.38	17.69	0.04	2.24	1.08
NCPWF Influent Pump Station	6.35	14.27	18.48	0.03	1.99	1.00
LFG Pipeline	7.08	47.50	67.23	0.08	8.64	6.01
MBC Improvements	1.56	10.72	13.24	0.02	0.81	0.68
North City Pump Station	2.39	19.89	21.35	0.04	1.29	1.11
North City Renewable Energy Facility	1.97	12.74	19.26	0.02	6.25	3.66
NCPWF	3.57	26.02	32.64	0.06	2.89	1.71
San Vicente Pipeline	3.84	28.62	35.67	0.06	2.06	1.65
MTBS	<u>1.05</u> <del>2.42</del>	<u>8.31</u> <del>20.10</del>	<u>8.63</u> <del>21.38</del>	<u>0.02</u> <del>0.04</del>	<u>0.67</u> <del>1.37</del>	<u>0.47</u> <del>1.13</del>
<b>Total 2020</b>	<b><u>45.70</u></b> <del>47.07</del>	<b><u>243.81</u></b> <del>255.60</del>	<b><u>322.02</u></b> <del>334.77</del>	<b><u>0.49</u></b> <del>0.54</del>	<b><u>49.415</u></b> <del>0.14</del>	<b><u>25.98</u></b> <del>26.64</del>

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**Table 7.2-27**  
**Estimated Maximum Daily Construction Emissions for the**  
**San Vicente Reservoir Alternative – Unmitigated**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>San Vicente Reservoir Alternative – 2021</i>						
Morena Pipelines	3.85	32.74	35.30	0.06	2.44	1.90
NCWRP Expansion	23.76	14.79	16.11	0.04	2.14	0.98
LFG Pipeline	5.68	45.92	51.58	0.08	4.06	2.85
NCPWF	33.26	26.97	30.41	0.06	2.94	1.60
San Vicente Pipeline	1.34	15.23	12.98	0.02	0.88	0.68
North City Renewable Energy Facility	1.09	9.15	11.43	0.02	0.68	0.57
<b>Total 2021</b>	<b>68.99</b>	<b>144.79</b>	<b>157.81</b>	<b>0.28</b>	<b>13.15</b>	<b>8.59</b>
<i>Maximum</i>	<del>68.99</del> 68.99	<del>367.71</del> 409.54	<del>822.67</del> 904.94	<del>1.56</del> 1.64	<del>99.39</del> 111.68	<del>53.27</del> 61.24
<i>SDAPCD Threshold</i>	137	550	250	250	100	67
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>YesNo</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix B for complete results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod.

VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-27, daily construction emissions for the Project would not exceed the City of San Diego’s significance thresholds for VOC, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. However, daily construction emissions for the Project would exceed the threshold for NO<sub>x</sub> and ~~PM<sub>10</sub>~~ during construction of the Project in 2019 and 2020. The estimated annual construction emissions for the San Vicente Reservoir Alternative is shown in Table 7.2-28.

**Table 7.2-28**  
**Estimated Annual Construction Emissions**  
**for the San Vicente Reservoir Alternative – Unmitigated**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
<i>San Vicente Reservoir Alternative – 2018</i>						
San Vicente Pipeline	0.11	0.70	1.27	0.00	0.18	0.08
<i>San Vicente Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	0.86	5.65	8.80	0.01	0.57	0.44
NCWRP Expansion	0.26	1.87	2.38	0.00	0.20	0.12
NCPWF Influent Pump Station	0.22	1.55	1.61	0.00	0.18	0.10
MBC Improvements	0.14	0.93	1.19	0.00	0.08	0.07
North City Pump Station	0.22	1.55	1.83	0.00	0.21	0.15

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**Table 7.2-28**  
**Estimated Annual Construction Emissions**  
**for the San Vicente Reservoir Alternative – Unmitigated**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
NCPWF	0.38	2.52	4.47	0.01	0.83	0.50
San Vicente Pipeline	1.02	6.57	11.23	0.02	0.74	0.54
MTBS	<u>0.27</u> 0.48	<u>2.00</u> 3.42	<u>6.61</u> 8.68	<u>0.02</u> 0.02	<u>0.51</u> 0.74	<u>0.19</u> 0.36
<b>Total 2019</b>	<b><u>3.37</u></b> <b>3.58</b>	<b><u>22.64</u></b> <b>24.05</b>	<b><u>38.114</u></b> <b>0.19</b>	<b><u>0.06</u></b> <b>0.06</b>	<b><u>3.31</u></b> <b>3.55</b>	<b><u>2.12</u></b> <b>2.29</b>
<i>San Vicente Reservoir Alternative – 2020</i>						
North City Pump Station	0.14	1.06	1.19	0.00	0.08	0.06
Morena Pump Station and Pipelines	0.54	3.72	4.86	0.01	0.37	0.27
MBC Improvements	0.06	0.40	0.48	0.00	0.03	0.02
LFG Pipeline	0.55	3.77	5.28	0.01	0.61	0.43
NCPWF Influent Pump Station	0.19	1.14	1.16	0.00	0.14	0.08
NCWRP Expansion	0.28	2.01	2.32	0.01	0.29	0.14
North City Renewable Energy Facility	0.14	1.06	1.45	0.00	0.12	0.09
NCPWF	0.46	3.40	4.28	0.01	0.37	0.22
MTBS	<u>0.06</u> 0.15	<u>0.47</u> 1.11	<u>0.53</u> 1.24	<u>0.00</u> 0.00	<u>0.04</u> 0.08	<u>0.030</u> 07
San Vicente Pipeline	0.26	2.06	2.42	0.00	0.15	0.12
<b>Total 2020</b>	<b><u>2.68</u></b> <b>2.77</b>	<b><u>19.094</u></b> <b>9.73</b>	<b><u>23.96</u></b> <b>24.68</b>	<b><u>0.0</u></b> <b>40.04</b>	<b><u>2.21</u></b> <b>2.24</b>	<b><u>1.46</u></b> <b>1.49</b>
<i>San Vicente Reservoir Alternative – 2021</i>						
Morena Pipelines	0.17	1.58	1.56	0.00	0.11	0.08
LFG Pipeline	0.35	2.87	3.19	0.01	0.24	0.17
NCWRP Expansion	1.24	0.95	1.05	0.00	0.11	0.06
NCPWF	1.70	1.67	1.89	0.00	0.18	0.10
San Vicente Pipeline	0.04	0.43	0.36	0.00	0.02	0.02
North City Renewable Energy Facility	0.06	0.51	0.62	0.00	0.04	0.03
<b>Total 2021</b>	<b>3.55</b>	<b>8.01</b>	<b>8.67</b>	<b>0.02</b>	<b>0.69</b>	<b>0.47</b>
<i>Maximum Annual Emissions</i>	<u>3.55</u> 3.58	<u>22.64</u> 24.05	<u>38.11</u> 40.19	<u>0.06</u> 0.06	<u>3.31</u> 3.55	<u>2.12</u> 2.29
<i>SDAPCD Threshold</i>	13.7	100	40	40	15	10
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix B for complete results.

**Notes:** VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

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As shown in Table 7.2-28, annual construction emissions for the Project would not exceed the City of San Diego’s significance thresholds for VOC, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. The Project would exceed the annual significance threshold for NO<sub>x</sub> during the 2019 construction year.

### 7.2.1.4.4 Mitigation Measures

To reduce NO<sub>x</sub> emissions during construction of the Project, implementation of mitigation measures MM-AQ-1 and MM-AQ-2 (Section 7.2.1.3.5) would be required for the San Vicente Reservoir Alternative, because that component would result in a potentially significant impact.

### 7.2.1.4.5 Level of Significance After Mitigation

Table 7.2-29 shows the estimated emissions from the San Vicente Reservoir Alternative after implementing mitigation measures MM-AQ-1 and MM-AQ-2.

**Table 7.2-29  
Mitigated Maximum Daily Construction Emissions  
for the San Vicente Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>San Vicente Reservoir Alternative – 2018</i>						
San Vicente Pipeline	6.99	68.35	94.95	0.15	13.69	6.36
<i>San Vicente Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	2.81	65.31	54.48	0.12	3.82	2.93
NCWRP Expansion	1.28	21.99	16.60	0.04	2.13	0.99
NCPWF Influent Pump Station	1.11	15.38	10.34	0.03	1.87	0.90
MBC Improvements	1.44	19.74	9.47	0.03	1.30	1.00
North City Pump Station	1.31	31.11	23.89	0.05	6.20	3.68
NCPWF	3.24	66.93	63.61	0.14	16.05	9.58
San Vicente Pipeline	6.64	67.67	90.48	0.15	6.19	4.36
MTBS	<u>11.73</u> <del>13.83</del>	<u>100.29</u> <del>146.48</del>	<u>383.92</u> <del>424.78</del>	<u>0.98</u> <del>4.07</del>	<u>26.813</u> <del>2.48</del>	<u>8.85</u> <del>12.69</del>
<b>Total 2019</b>	<b><u>29.55</u></b> <b><del>31.65</del></b>	<b><u>388.41</u></b> <b><del>434.60</del></b>	<b><u>652.78</u></b> <b><del>693.64</del></b>	<b><u>1.56</u></b> <b><del>1.64</del></b>	<b><u>64.36</u></b> <b><del>70.03</del></b>	<b><u>32.29</u></b> <b><del>36.13</del></b>
<i>San Vicente Reservoir Alternative – 2020</i>						
Morena Pump Station and Pipelines	10.41	64.25	54.13	0.12	20.64	7.06
NCWRP Expansion	1.20	16.12	13.90	0.04	2.12	0.98
NCPWF Influent Pump Station	5.12	15.06	11.09	0.03	1.86	0.90
LFG Pipeline	1.99	50.68	37.21	0.08	4.53	3.26
MBC Improvements	0.53	11.46	9.44	0.02	0.69	0.58
North City Pump Station	0.93	24.03	18.15	0.04	1.17	1.06



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**Table 7.2-29**  
**Mitigated Maximum Daily Construction Emissions**  
**for the San Vicente Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
NCPWF	1.71	28.02	25.34	0.06	2.64	1.55
North City Renewable Energy Facility	0.54	13.44	10.79	0.02	3.00	1.83
San Vicente Pipeline	2.35	32.81	29.94	0.06	1.92	1.56
MTBS	<u>0.47</u> 0.97	<u>10.30</u> 24.24	<u>7.52</u> 48.17	<u>0.02</u> 0.04	<u>0.63</u> 1.25	<u>0.46</u> 1.08
<b>Total 2020</b>	<b><u>25.25</u></b> <b>25.75</b>	<b><u>266.16</u></b> <b>280.09</b>	<b><u>217.51</u></b> <b>228.16</b>	<b><u>0.49</u></b> <b>0.51</b>	<b><u>39.18</u></b> <b>39.80</b>	<b><u>19.23</u></b> <b>19.85</b>
<i>San Vicente Reservoir Alternative – 2021</i>						
Morena Pipelines	1.44	36.53	24.97	0.06	1.91	1.51
NCWRP Expansion	22.95	15.75	13.45	0.04	2.10	0.97
LFG Pipeline	2.28	52.06	36.04	0.08	3.32	2.31
NCPWF	31.68	32.78	25.72	0.06	2.91	1.66
San Vicente Pipeline	1.34	15.23	12.98	0.02	0.88	0.68
North City Renewable Energy Facility	0.41	10.39	8.36	0.02	0.56	0.49
<b>Total 2021</b>	<b>60.11</b>	<b>162.73</b>	<b>121.51</b>	<b>0.28</b>	<b>11.70</b>	<b>7.63</b>
<i>Maximum</i>	<u>60.11</u> <u>60.11</u>	<u>388.41</u> <u>434.60</u>	<u>652.78</u> <u>693.64</u>	<u>1.56</u> <u>1.64</u>	<u>64.36</u> <u>70.03</u>	<u>32.29</u> <u>36.13</u>
<i>SDAPCD Threshold</i>	137	550	250	250	100	67
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix B for complete results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod.

VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-29, the San Vicente Reservoir Alternative construction emissions exceed the City of San Diego’s significance threshold for NO<sub>x</sub> emissions after implementation of mitigation measures MM-AQ-1 and MM-AQ-2 in 2019. The exceedance is driven by the MTBS phase of the San Vicente Reservoir Alternative, which requires a substantial amount of excavation work. The haul trips associated with the excavation work comprise the majority of the NO<sub>x</sub> emissions for that phase in 2019. In order to reduce the impact to less than significant, the phase would need to be redesigned to keep excavated soil on site or potentially use another site location where less excavation and hauling is required.

Table 7.2-30 shows the annual construction emissions from the San Vicente Reservoir Alternative after implementation of mitigation measures MM-AQ-1 and MM-AQ-2.

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**Table 7.2-30**  
**Mitigated Annual Construction Emissions for the San Vicente Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
<i>San Vicente Reservoir Alternative – 2018</i>						
San Vicente Pipeline	0.03	0.73	0.72	0.00	0.13	0.05
<i>San Vicente Reservoir Alternative – 2019</i>						
Morena Pump Station and Pipelines	0.26	5.95	5.07	0.01	0.35	0.26
NCWRP Expansion	0.10	1.96	1.57	0.00	0.16	0.09
NCPWF Influent Pump Station	0.09	1.61	1.07	0.00	0.15	0.08
MBC Improvements	0.05	0.96	0.67	0.00	0.06	0.05
North City Pump Station	0.07	1.69	1.34	0.00	0.13	0.10
NCPWF	0.14	2.90	2.76	0.01	0.43	0.27
San Vicente Pipeline	0.33	7.05	6.78	0.02	0.47	0.33
MTBS	<u>0.20</u> <del>0.27</del>	<u>2.10</u> <del>3.65</del>	<u>6.31</u> <del>7.64</del>	<u>0.02</u> <del>0.02</del>	<u>0.44</u> <del>0.57</del>	<u>0.16</u> <del>0.26</del>
<b>Total 2019</b>	<b><u>1.25</u></b> <del>1.32</del>	<b><u>24.22</u></b> <del>25.76</del>	<b><u>25.57</u></b> <del>26.87</del>	<b><u>0.06</u></b> <del>0.06</del>	<b><u>2.19</u></b> <del>2.31</del>	<b><u>1.34</u></b> <del>1.44</del>
<i>San Vicente Reservoir Alternative – 2020</i>						
North City Pump Station	0.05	1.13	0.93	0.00	0.07	0.06
Morena Pump Station and Pipelines	0.20	4.13	3.11	0.01	0.27	0.20
MBC Improvements	0.02	0.43	0.34	0.00	0.03	0.02
LFG Pipeline	0.17	4.08	2.99	0.01	0.34	0.24
NCPWF Influent Pump Station	0.10	1.22	0.82	0.00	0.13	0.07
NCWRP Expansion	0.15	2.11	1.83	0.01	0.27	0.13
NCPWF	0.22	3.66	3.33	0.01	0.34	0.20
North City Renewable Energy Facility	0.05	1.17	0.94	0.00	0.08	0.06
MTBS	<u>0.03</u> <del>0.05</del>	<u>0.52</u> <del>1.18</del>	<u>0.40</u> <del>0.98</del>	<u>0.00</u> <del>0.00</del>	<u>0.04</u> <del>0.07</del>	<u>0.03</u> <del>0.06</del>
San Vicente Pipeline	0.11	2.50	1.86	0.00	0.13	0.11
<b>Total 2020</b>	<b><u>1.09</u></b> <del>1.42</del>	<b><u>20.93</u></b> <del>24.60</del>	<b><u>16.55</u></b> <del>17.42</del>	<b><u>0.04</u></b> <del>0.04</del>	<b><u>1.70</u></b> <del>1.74</del>	<b><u>1.11</u></b> <del>1.45</del>
<i>San Vicente Reservoir Alternative – 2021</i>						
Morena Pipelines	0.07	1.80	1.19	0.00	0.09	0.07
LFG Pipeline	0.13	3.22	2.22	0.01	0.19	0.14
NCWRP Expansion	1.18	1.06	0.80	0.00	0.10	0.06
NCPWF	1.60	1.85	1.60	0.00	0.17	0.10
San Vicente Pipeline	0.02	0.50	0.32	0.00	0.02	0.02

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**Table 7.2-30**  
**Mitigated Annual Construction Emissions for the San Vicente Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
North City Renewable Energy Facility	0.02	0.57	0.45	0.00	0.03	0.03
<b>Total 2021</b>	<b>3.01</b>	<b>8.99</b>	<b>6.58</b>	<b>0.02</b>	<b>0.61</b>	<b>0.41</b>
<i>Maximum Annual Emissions</i>	<u>3.01</u>	<u>24.22</u>	<u>25.57</u>	<u>0.06</u>	<u>2.19</u>	<u>1.34</u>
	<del>3.04</del>	<del>25.76</del>	<del>26.87</del>	<del>0.06</del>	<del>2.31</del>	<del>1.44</del>
<i>SDAPCD Threshold</i>	13.7	100	40	40	15	10
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix B for complete results.

**Notes:** VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

Table 7.2-30 above, shows resulting emissions when mitigation measures MM-AQ-1 and MM-AQ-2 are applied to the San Vicente Reservoir Alternative. Following implementation of MM-AQ-1 and MM-AQ-2, the annual construction emissions from the San Vicente Reservoir Alternative do not exceed the City of San Diego’s significance threshold for NO<sub>x</sub> emissions. However, as discussed above, following implementation of mitigation measures MM-AQ-1 and MM-AQ-2 to the San Vicente Reservoir Alternative, daily construction NO<sub>x</sub> emissions for the Project would not be reduced to below the City of San Diego’s significance threshold, and the San Vicente Reservoir Alternative would have a potential significant and unavoidable impact.

## 7.2.2 Operational Impacts

### 7.2.2.1 General Approach and Methodology

#### Mobile Sources (Motor Vehicles)

Following the completion of construction activities, the Project would generate VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources (vehicular traffic), as a result of 60 additional staff for the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative. The motor vehicles assumptions are the same for the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative. It is expected that during normal operations, these workers would generate 120 one-way trips (i.e., 1 one-way trip from home to work and 1 one-way trip from work to home). Additionally, operational trips would be generated as a result of routine maintenance, periodic inspections and repairs of system facilities, monitoring, brush maintenance, and other operational procedures similar to those under the City’s current water and wastewater treatment and distribution system. It was assumed that only a minor increase in O&M trips (in addition to the 60 new employees) would be required; therefore, it was assumed on a worst-case day that an additional 10 O&M-related trips would occur. In total, the Project

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operations would be expected to generate approximately 140 average daily trips for the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative.

The CalEEMod Version 2016.3.1 model was used to estimate daily emissions from proposed vehicular sources (refer to Appendices A and B). CalEEMod Version 2016.3.1 default data, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2022 were conservatively used to estimate emissions associated with vehicular sources. The 2022 operational year represents the first phase of the Project that would come online associated with the initial 30 MGD.

### Diesel Generators

In addition to operational emissions from vehicular sources, it was conservatively assumed that one diesel-powered emergency generator would be required for back-up power at the NCPWF. The diesel generator assumptions are the same for the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative. The other facilities either receive power from existing on-site cogen or from SDG&E. For the purposes of a conservative analysis, it was assumed that the generator would be approximately 1,000 HP with a kilowatt rating of 750; however, most pump station generators would likely be smaller (between 300–500 HP) (PBS&J 2011). It was assumed that the generator would only be used for emergency back-up power in the event of power outages, as well as for routine testing and maintenance. The NCPWF would not run at full capacity while running off power from the emergency generator. The compressor station located on the Miramar Landfill would also have a 2,500 kilowatt Tier 4 diesel emergency generator. CARB's ATCM for stationary diesel engines restricts diesel engine operation for testing and maintenance to 50 hours per year, unless a diesel particulate filter is used to reduce PM<sub>10</sub> emissions (CARB 2011). Thus, it was assumed that the engines would operate up to 50 hours per year (1 hour per week, 50 weeks per year) for testing and maintenance. Emissions were calculated using CalEEMod 2016.3.1 and a spreadsheet based model.

### North City Renewable Energy Facility

The renewable energy facility at the NCPWF would include six Caterpillar model CG26-16 or equivalent generators, with one acting as a backup. The renewable energy facility is expected to produce up to 15.4 MW of power. The generators are designed to operate on gaseous fuel, either natural gas or LFG. For the purposes of estimating emissions, it was assumed that the generators would operate on 100% LFG from the Miramar Landfill. The LFG will undergo a series of cleanups starting at the compressor station where moisture and large contaminants will be removed, followed by an LFG cleaning and conditioning system on site at the NCWRP. The gas

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cleaning equipment is designed to supply clean, dry LFG to the new facility. The emissions from the renewable energy facility were estimated using a spreadsheet based model and emission factors from the engine technical data sheet, oxidation catalyst and Non-selective Catalyst Reduction post-combustion emission controls, US EPA AP-42, and SDAPCD.

### Health Risk Assessment

An HRA was performed to evaluate potential health risk associated with operation of the renewable energy facility. The following discussion summarizes the dispersion modeling and HRA methodology and assumptions presented in Appendix C.

The air dispersion modeling methodology was based on generally accepted modeling practices of the SDAPCD (SDAPCD 2015b). Air dispersion modeling was performed using the EPA’s AERMOD (Version 16216r) modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 9.2.0. The HRA followed the Office of Environmental Health Hazard Assessment 2015 guidelines (OEHHA 2015) and SDAPCD Tier-1 techniques to calculate the health risk impacts at all receptors including the nearby residential receptors, the nearest school, and off-site worker receptors, as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SDAPCD and EPA guidance and identified as representative of the Project site and activities. Principal parameters of this modeling are presented in Table 7.2-31.

**Table 7.2-31  
AERMOD Principle Parameters**

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Marine Corps Air Station (MCAS) Miramar #722931 were used for the dispersion modeling. The 5-year meteorological dataset from 2009 through early 2014 was obtained from the Air Quality Planning and Science Division of CARB in a preprocessed format suitable for use in AERMOD and Hotspots Analysis and Reporting Program Version 2 (HARP2) modeling (CARB 2015).
Urban versus Rural Option	Urban dispersion option was selected due to the developed nature of the Project area and per SDAPCD guidelines.
On-site Buildings	For the operational scenario, a total of seven on-site buildings close to the emission sources were included in the modeling using best available dimensional data. Buildings less than 20 feet or greater than 250 feet from the new sources were not included in the assessment. Building downwash effects were assessed using Building Profile Input Program (BPIP with Plume Rise Model Enhancements (PRIME).
Terrain Characteristics	The modeling included the use of all standard regulatory default options, including the use of rural dispersion parameters and elevated terrain.
Elevation Data	Digital elevation data were imported into AERMOD, and elevations were assigned to receptors, buildings, and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View™ WebGIS import feature in the U.S. Geological Survey’s Digital Elevation Model (DEM 7.5) format, with a resolution of 1 degree.

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**Table 7.2-31  
AERMOD Principle Parameters**

Parameter	Details
Emission Sources and Release Parameters	The exhaust stacks from the LFG ICEs were modeled as individual point sources. The release parameters for the ICEs were calculated from data provided in the engineering evaluation of the engines for 100% load case. There are six engines, with one as a backup. Thus, no more than five engines will operate simultaneously. The western-most five engines were included in the HRA since the closest receptors are to the west of the project.
Receptors	<p>Model results were obtained at various locations around the facility. These receptor locations were identified as the facility boundary, a grid network of receptors to establish the impact area and area where the maximum impact would occur, and discrete receptors that were positioned at specific locations of concern, namely the nearest residences, worker, and sensitive receptors.</p> <p>The facility boundary was established from an aerial map. Receptors were placed every 50 meters along the fenceline. Grid receptors were placed every 100 meters out to 1 kilometer, then every 250 meters out to 2 kilometers to ensure impacts were below the appropriate CEQA thresholds at all locations off site. A series of receptors were placed along the worker locations to the west and northeast of the Project.</p>

**Source:** See Appendix C.

The operational scenario used discrete Cartesian receptors positioned at specific locations of concern to evaluate the maximally exposed sensitive receptor. Discrete receptors are shown below in Table 7.2-32. To capture peak off-site worker exposure, worker risks were analyzed at the residential receptors. In addition, receptors were placed at the facility boundary, which encompasses the Project boundary, and fenceline receptors were placed every 50 meters.

**Table 7.2-32  
Sensitive Receptors and Proximity to Renewable Energy Facility**

Name	UTM Easting (meters)	UTM Northing (meters)	Distance to Receptor from the Power Units (kilometers)
Torah High School	480727.2	3636989	1.2
La Jolla Country Day	479941.9	3637767	1.6
Childtime	480393.8	3636961	1.5
UCSD Hospital	479201.2	3637859	2.3
Bright Daycare	480662.0	3637527	0.9
Nobel Recreation Center Park	481221.6	3636913	1.0
Resident 1	481019.9	3637371	0.7
Resident 2	481054.5	3637291	0.8
Resident 3	480556.9	3637550	1.0
Resident 4	480367.3	3637887	1.2

**Source:** Appendix C

The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Risk Assessment Standalone Tool (RAST, version 17023). AERMOD was run with all sources emitting emissions in 1 gram per second to obtain the necessary input values

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for HARP2. The dispersion factor values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the ground-level concentrations for each pollutant. The ground-level concentrations were then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic and acute health indices.

Cancer risk is the estimated probability of an exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations and 25 years for off-site worker receptor locations. Sensitive receptors, such as schools, hospitals, convalescent homes, and day-care centers, were evaluated the same as residences. The Office of Environmental Health Hazard Assessment Derived Method was used to calculate the cancer risk. All receptors were assessed for a 30-year cancer risk with a “fraction of time at home” selected for the third trimester through 70 years. Mandatory minimum pathways of inhalation, soil ingestion, dermal absorption, and mother’s milk were selected. To assess the 25-year cancer risk to workers, all receptors were included in the worker run, but the results only examined the seven worker receptors. Worker pathways of inhalation, soil ingestion, and dermal absorption were selected, and no worker adjustment factor was enabled as the Project may operate continuously.

The Chronic Hazard Index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system, and the Acute Hazard Index is the sum of the individual substance acute hazard indices for all TACs affecting the same target organ system.<sup>6</sup> A hazard index less of than one (1.0) means that adverse health effects are not expected. Within this analysis, noncarcinogenic exposures of less than 1.0 are considered less than significant. Some TACs increase non-cancer health risk due to short-term (acute) exposures. The Acute Hazard Index is the sum of the individual substance acute hazard indices for all TACs affecting the same target organ system. Acute risk is calculated from a 1-hour exposure.

Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a Maximum Individual Cancer Risk of greater than or equal to one in one million ( $1.0 \times 10^{-6}$ ) based on a 70-year exposure to TACs. The cancer burden is determined for the population located within the zone of impact, defined as the area within the one in one million cancer risk isopleth for a 70-year exposure. HARP2 was used to generate an isopleth, which is a line of a constant value, showing the area exposed to a cancer risk above one in one million. Cancer burden was conservatively estimated by using the distance of the furthest receptor within the one in one million isopleth as the radius of a zone of impact.

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<sup>6</sup> The Chronic Hazard Index and the Acute Hazard Index (1-hour) estimates for all receptor types used the OEHHA Derived calculation method (OEHHA 2015).

## Air Quality Technical Report for the North City Project

The operational HRA calculated Residential Maximum Individual Cancer Risk, Worker Maximum Individual Cancer Risk, Residential Chronic Hazard Index, Residential Cancer Burden, and Acute Hazard Index at the Point of Maximum Impact.

### 7.2.2.2 Miramar Reservoir Alternative

Table 7.2-33, Estimated Daily Maximum Operational Emissions, presents the maximum daily emissions associated with the operation of the Project after all phases of construction have been completed. Complete details of the emissions calculations are provided in Appendices A and C of this document.

Emissions represent maximum of summer and winter. “Summer” emissions are representative of the conditions that may occur during the ozone season (May 1 to October 31), and “winter” emissions are representative of the conditions that may occur during the balance of the year (November 1 to April 30).

**Table 7.2-33  
Maximum Daily Operational Emissions for Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>Area</i>						
Morena Pump Station	0.15	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	5.77	0.01	0.00	0.00	0.00	0.00
NCPWF Influent Pump Station	0.16	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.12	0.00	0.00	0.00	0.00	0.00
NCPWF	7.72	0.03	0.00	0.00	0.00	0.00
Dechlorination Facility	0.04	0.00	0.00	0.00	0.00	0.00
Miramar WTP Improvements	0.02	0.00	0.00	0.00	0.00	0.00
<b>Total Area</b>	<b>13.98</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<i>Mobile</i>						
Morena Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	0.19	2.53	0.89	0.01	0.77	0.21
NCPWF Influent Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCPWF	0.62	8.47	2.90	0.03	2.94	0.80
Dechlorination Facility	0.00	0.00	0.00	0.00	0.00	0.00
Miramar WTP Improvements	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Mobile</b>	<b>0.81</b>	<b>11.00</b>	<b>3.79</b>	<b>0.04</b>	<b>3.70</b>	<b>1.01</b>



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**Table 7.2-33**  
**Maximum Daily Operational Emissions for Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>Stationary</i>						
NCPWF	13.13	33.48	58.71	0.06	1.93	1.93
Compressor Station	<u>0.77</u>	<u>14.22</u>	<u>2.74</u>	<u>0.03</u>	<u>0.11</u>	<u>0.11</u>
North City Renewable Energy Facility	25.0	101.10	137.90	15.30	13.80	13.80
<b>Total</b>	<b><u>53.6952.92</u></b>	<b><u>159.84145.62</u></b>	<b><u>203.14200.40</u></b>	<b><u>15.4043</u></b>	<b><u>19.5519.44</u></b>	<b><u>16.7485</u></b>
<i>SDAPCD Threshold</i>	137	550	250	250	100	67
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix A and C for complete results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod.

VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-33 above, the maximum daily operational emissions would not exceed the City of San Diego's thresholds for VOC, CO, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> during the operation of the Project.

Table 7.2-34 below shows the maximum annual operational emissions estimated for the Project.

**Table 7.2-34**  
**Estimated Maximum Annual Operational Emissions**  
**for the Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
<i>Area</i>						
Morena Pump Station	0.03	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	1.05	0.00	0.00	0.00	0.00	0.00
NCPWF Influent Pump Station	0.03	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.02	0.00	0.00	0.00	0.00	0.00
NCPWF	1.41	0.00	0.00	0.00	0.00	0.00
Dechlorination Facility	0.01	0.00	0.00	0.00	0.00	0.00
Miramar WTP Improvements	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Area</b>	<b>2.55</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<i>Mobile</i>						
Morena Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	0.01	0.18	0.06	0.00	0.05	0.01
NCPWF Influent Pump Station	0.00	0.00	0.00	0.00	0.00	0.00

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**Table 7.2-34**  
**Estimated Maximum Annual Operational Emissions**  
**for the Miramar Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCPWF	0.03	0.47	0.16	0.00	0.16	0.04
Dechlorination Facility	0.00	0.00	0.00	0.00	0.00	0.00
Miramar WTP Improvements	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Mobile</b>	<b>0.05</b>	<b>0.64</b>	<b>0.22</b>	<b>0.00</b>	<b>0.21</b>	<b>0.06</b>
<i>Stationary</i>						
NCPWF	0.04	0.10	0.18	0.00	0.01	0.01
Compressor Station	<u>0.02</u>	<u>0.36</u>	<u>0.07</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
North City Renewable Energy Facility	4.60	18.40	25.20	2.80	2.50	2.50
<b>Total</b>	<b><u>7.2426</u></b>	<b><u>19.1551</u></b>	<b><u>25.6468</u></b>	<b>2.80</b>	<b>2.72</b>	<b>2.56</b>
<i>SDAPCD Threshold</i>	<i>13.7</i>	<i>100</i>	<i>40</i>	<i>40</i>	<i>15</i>	<i>10</i>
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix A and C for complete results.

**Notes:** VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-34 above, the annual operations emissions for the Project do not exceed the City of San Diego's significance thresholds for VOC, CO, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

## Mitigation Measures

No mitigation is required for the Miramar Reservoir Alternative.

## Level of Significance After Mitigation

Impacts associated with the Miramar Reservoir Alternative would be less than significant without mitigation.

### 7.2.2.3 San Vicente Reservoir Alternative

Table 7.2-35, Estimated Daily Maximum Operational Emissions, presents the maximum daily emissions associated with the operation of the Project after all phases of construction have been completed. Complete details of the emissions calculations are provided in Appendices B and C of this document.

## Air Quality Technical Report for the North City Project

**Table 7.2-35**  
**Estimated Daily Operational Emissions from the San Vicente Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>lb per day</i>					
<i>Area</i>						
Morena Pump Station	0.15	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	5.77	0.01	0.00	0.00	0.00	0.00
NCPWF Influent Pump Station	0.16	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.12	0.00	0.00	0.00	0.00	0.00
NCPWF	7.72	0.03	0.00	0.00	0.00	0.00
MTBS	0.10	0.00	0.00	0.00	0.00	0.00
<b>Total Area</b>	<b>14.02</b>	<b>0.05</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<i>Mobile</i>						
Morena Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	0.19	2.53	0.89	0.01	0.77	0.21
NCPWF Influent Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCPWF	0.62	8.47	2.90	0.03	2.94	0.80
MTBS	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Mobile</b>	<b>0.81</b>	<b>11.00</b>	<b>3.79</b>	<b>0.04</b>	<b>3.70</b>	<b>1.01</b>
<i>Stationary</i>						
NCPWF	13.13	33.48	58.71	0.06	1.93	1.93
<u>Compressor Station</u>	<u>0.77</u>	<u>14.22</u>	<u>2.74</u>	<u>0.03</u>	<u>0.11</u>	<u>0.11</u>
North City Renewable Energy Facility	25.0	101.10	137.90	15.30	13.80	13.80
<b>Total</b>	<b>53.7352.96</b>	<b>159.84145.62</b>	<b>203.14200.40</b>	<b>15.4043</b>	<b>19.4455</b>	<b>16.7485</b>
<i>SDAPCD Threshold</i>	137	550	250	250	100	67
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix B and C for complete results.

**Notes:** The values shown are the maximum summer or winter daily emissions results from CalEEMod.

VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

Emissions represent the maximum summer or winter daily emissions results from CalEEMod. “Summer” emissions are representative of the conditions that may occur during the ozone season (May 1 to October 31), and “winter” emissions are representative of the conditions that may occur during the balance of the year (November 1 to April 30). As shown in Table 7.2-35 above, the daily operational emissions for the Project do not exceed the City of San Diego’s significance thresholds for VOC, CO, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

The estimated annual operational emissions for the project are shown below in Table 7.2-36.

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**Table 7.2-36**  
**Estimated Annual Operational Emissions for the San Vicente Reservoir Alternative**

Project Component	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	<i>tons per year</i>					
<i>Area</i>						
Morena Pump Station	0.03	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	1.05	0.00	0.00	0.00	0.00	0.00
NCPWF Influent Pump Station	0.03	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.02	0.00	0.00	0.00	0.00	0.00
NCPWF	1.41	0.00	0.00	0.00	0.00	0.00
MTBS	0.02	0.00	0.00	0.00	0.00	0.00
<b>Total Area</b>	<b>2.56</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<i>Mobile</i>						
Morena Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCWRP Expansion	0.01	0.18	0.06	0.00	0.05	0.01
NCPWF Influent Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
MBC Improvements	0.00	0.00	0.00	0.00	0.00	0.00
North City Pump Station	0.00	0.00	0.00	0.00	0.00	0.00
NCPWF	0.03	0.47	0.16	0.00	0.16	0.04
MTBS	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Mobile</b>	<b>0.05</b>	<b>0.64</b>	<b>0.22</b>	<b>0.00</b>	<b>0.21</b>	<b>0.06</b>
<i>Stationary</i>						
NCPWF	0.04	0.10	0.18	0.00	0.01	0.01
Compressor Station	<u>0.02</u>	<u>0.36</u>	<u>0.07</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
North City Renewable Energy Facility	4.60	18.40	25.20	2.80	2.50	2.50
<b>Total</b>	<b><u>7.2527</u></b>	<b><u>19.4551</u></b>	<b><u>25.6468</u></b>	<b>2.80</b>	<b>2.72</b>	<b>2.56</b>
<i>SDAPCD Threshold</i>	13.7	100	40	40	15	10
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Source:** CalEEMod Version 2016.3.1. See Appendix B and C for complete results.

**Notes:** VOC = volatile organic compound; CO = carbon monoxide; NO<sub>x</sub> = oxides of nitrogen; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter

As shown in Table 7.2-36 above, the annual operations emissions for the Project do not exceed the City of San Diego's significance thresholds for VOC, CO, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

## Mitigation Measures

No mitigation is required for the San Vicente Reservoir Alternative.

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## Level of Significance After Mitigation

Impacts associated with the San Vicente Reservoir Alternative would be less than significant without mitigation.

### **7.3 Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for which the Project Region is Nonattainment under an Applicable Federal or State Ambient Air Quality Standard**

In analyzing cumulative impacts from the Project, the analysis must specifically evaluate a Project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If the Project does not exceed thresholds and is determined to have less-than-significant Project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the Project components, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the Project would only be considered to have a significant cumulative impact if its contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions within the basin to ensure the SDAB continues to make progress toward NAAQS and CAAQS attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents upon which the RAQS is based would have the potential to result in cumulative impacts if they represent development beyond regional projections.

The SDAB has been designated as a federal nonattainment area for O<sub>3</sub> and a state nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. PM<sub>10</sub> and PM<sub>2.5</sub> emissions associated with construction generally result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SDAB. As discussed in Section 7.3, the emissions of all criteria pollutants would be below the significance levels with implementation of mitigation measures AQ-1 and AQ-2 for the Miramar Reservoir Alternative. However, with implementation of the mitigation measures, the San Vicente Reservoir Alternative would exceed the daily NO<sub>x</sub> emissions significance threshold. Construction would be short term and temporary in nature. Additionally, construction activities required for the implementation of Project components would be considered typical of a water infrastructure project and would not require atypical

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construction practices that would include high-emitting activities. Once construction is completed, construction-related emissions would cease. Operational emissions generated by the Project would not result in a significant impact. As such, the Project would result in less-than-significant impacts to air quality relative to operational emissions.

Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by the County as part of the development of their general plans. Therefore, projects involving development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As discussed in Section 7.1 of the Draft Environmental Impact Report/Environmental Impact Statement, the Project components are consistent with the existing zoning and land use designations in the various locations in each jurisdiction in which the Project would occur. Additionally, implementation of the Project would not result in additional population growth or growth-inducing effects; thus, it would be consistent at a regional level with the underlying growth forecasts in the SIP and RAQS.

As a result, the Miramar Reservoir Alternative would not result in a cumulatively considerable contribution to regional O<sub>3</sub> concentrations or other criteria pollutant emissions. Cumulative impacts would be **less than significant** for that alternative.

Because the San Vicente Reservoir Alternative exceeded the Project-level significance threshold for NO<sub>x</sub>, it would be deemed to have a cumulatively considerable contribution to regional O<sub>3</sub> concentrations and would be **potentially significant and unavoidable**.

### Mitigation Measures

For the Miramar Reservoir Alternative, implement MM-AQ-1 through MM-AQ-2.

For the San Vicente Reservoir Alternative, implement MM-AQ-1 through MM-AQ-2.

### Level of Significance After Mitigation

Impacts associated with the Miramar Reservoir Alternative would be less than significant with mitigation.

For the San Vicente Reservoir Alternative, impacts would be potentially significant and unavoidable.

## 7.4 Expose Sensitive Receptors to Substantial Pollutant Concentrations

### Carbon Monoxide Hotspots

Mobile-source impacts occur on two basic scales of motion. Regionally, Project-related travel will add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, North City Project traffic will be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the North City Project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. A traffic report (Chen Ryan 2017), evaluated the level of service (LOS) (i.e., increased congestion) impacts at intersections affected by the Project. The potential for CO hotspots was evaluated based on the results of the traffic report. City of San Diego's Significance Determination Thresholds (City of San Diego 2016) CO hotspot screening guidance was followed to determine if the Project would require a site-specific hotspot analysis. The City recommends that a quantitative analysis of CO hotspots be performed if a proposed development causes a six-lane or four-lane roadway to deteriorate to a LOS E or worse, causes a six-lane roadway to drop to LOS F, or if a proposed development is within 400 feet of a sensitive receptor and the LOS is D or worse. The Project's traffic report determined that peak hour trips were not anticipated to be generated by the Project, and an intersection analysis was not required. The traffic report also determined that Project construction and operation would not have a significant impact on transportation, and no mitigation is recommended.

Project maintenance activities will be temporary and would not be a source of daily, long-term mobile-source emissions. Accordingly, Project maintenance activities would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. In addition, because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing. Background CO levels in the area, as shown in Table 5.2-1, Ambient Air Quality Data, are less than 20% of the 1-hour and 8-hour CAAQS and would be expected to improve further due to reductions in motor vehicle emissions. Based on these considerations, Project maintenance would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

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## Health Impacts of TACs

In addition to impacts from criteria pollutants, Project impacts may include emissions of pollutants identified by the state and federal government as TACs or HAPs. State law has established the framework for California's TAC identification and control project, which is generally more stringent than the federal project, and is aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal HAPs, and is adopting appropriate control measures for sources of these TACs.

The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy equipment operations and heavy-duty trucks, and the associated health impacts to sensitive receptors. The closest sensitive receptors would be any receptor located directly adjacent to the proposed alignments and associated facilities.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends an incremental cancer risk threshold of 10 in a million. "Incremental cancer risk" is the likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 70-year lifetime will contract cancer based on the use of standard risk-assessment methodology.

### **Construction Health Risk Assessment**

In order to determine potential health risk associated with construction of Project facilities, sensitive receptors were identified in proximity to each of the sites identified in the Draft EIR/EIS. The MTBS is the only facility site with sensitive receptors within 1,000 feet of the facility construction area that has a construction duration longer than 2 months. As such, this facility was used as the worst-case exposure scenario, with the understanding that if construction health risk was below applicable thresholds for this facility, then health risk would be less-than-significant for the other facilities. Notably, a 1,000-foot radial distance is considered the distance in which pollutant concentrations are greatest, and serves as a general "notification" distance from receptors. For example, research conducted by CARB indicated an 80% drop-off in pollutant concentrations at approximately 1,000 feet from major sources (CARB 2005). Therefore, a 1,000-foot distance is often used in analyzing impacts to receptors from distribution centers, freeways, rail yards, stationary sources, and other pollutant sources.

Construction of the MTBS would result in diesel particulate matter (DPM) emissions from heavy-duty construction equipment and trucks operating within the facility construction area. CARB characterizes DPM as a TAC. The State of California Office of Environmental Health Hazard Assessment (OEHHA) has identified carcinogenic and chronic noncarcinogenic effects from long-term (chronic) exposure, but it has not identified health effects due to short-term



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(acute) exposure to DPM (OEHHA 2015). The nearest existing off-site sensitive receptors from the MTBS site consist of residences located adjacent to the eastern boundary of the Project site.

Cancer risk is defined as the increase in lifetime probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased probability in 1 million. The cancer risk from inhalation of a TAC is estimated by calculating the inhalation dose in units of milligrams/kilogram body weight per day based on an ambient concentration in units of micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), breathing rate, age-specific sensitivity factors, and exposure period, and multiplying the dose by the inhalation cancer potency factor, expressed as units of inverse dose [i.e., (milligrams/kilogram body weight per day)<sup>-1</sup>]. Typically, population-wide cancer risks are based on a lifetime (70 years) of continuous exposure, and an individual resident cancer risk is based on a 30-year exposure duration; however, for the purposes of this analysis, a 3-year exposure scenario corresponding to the construction period for MTBS was assumed.

Cancer risks are typically calculated for all carcinogenic TACs and summed to calculate the overall increase in cancer risk to an individual. The calculation procedure assumes that cancer risk is proportional to concentrations at any level of exposure and that risks from various TACs are additive. This is considered a conservative assumption at low doses and is consistent with the updated OEHHA-recommended approach (OEHHA 2015).

Noncancer health impact of an inhaled TAC is measured by the hazard quotient, which is the ratio of the ambient concentration of a TAC in units of  $\mu\text{g}/\text{m}^3$  divided by the reference exposure level (REL), also in units of  $\mu\text{g}/\text{m}^3$ . The inhalation REL is the concentration at or below which no adverse health effects are anticipated. The REL is typically based on health effects to a particular target organ system, such as the respiratory system, liver, or central nervous system. Hazard quotients are then summed for each target organ system to obtain a hazard index.

To estimate the ambient DPM concentrations resulting from construction activities at nearby sensitive receptors, a dispersion modeling analysis was performed using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) dispersion model, Version 16216r, in conjunction with the Hotspots Analysis and Reporting Program Version 2 (HARP 2). CARB developed HARP 2 as a tool to implement the risk assessments and incorporates all the requirements provided by OEHHA as outlined in the Air Toxics Hot Spot Program Risk Assessment Guidelines – Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015).

The DPM emissions from diesel-powered construction equipment and on-site diesel-powered trucks that would be used during construction are based on the CalEEMod model output for the MTBS construction, as provided in Appendix D. Annual emissions of construction-related

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exhaust PM<sub>10</sub>, as a surrogate for DPM, were calculated and then converted to grams per second for use in the AERMOD model. Additional construction details were available at the time this HRA was performed and it was determined that construction equipment would be operating 4 hours per day, Monday through Friday as opposed to 8 hours per day in the Draft EIR/EIS (Brown and Caldwell 2018). This HRA also assumed that heavy-duty diesel vehicles would have a trip length of 0.25 mile to represent on-site emissions. An unmitigated emission rate of 3.91 x 10<sup>-3</sup> grams per second was calculated as follows:

0.0484 total tons exhaust PM<sub>10</sub> = 96.8 total pounds (lbs) DPM during construction

$$\frac{96.8 \text{ lbs} \times 453.6 \text{ g/lb} \div (4 \text{ hrs/day} \times 780 \text{ working days}) \div 3600 \text{ seconds/hour}}{3.91 \times 10^{-3} \text{ g/second}}$$

An area source representing the site area was used to represent the emissions released by the construction equipment, as equipment will move freely around the site. A release height of 5 meters was provided to represent the midrange of the expected plume rise from frequently used construction equipment during daytime atmospheric conditions. These parameters reflect those utilized in the South Coast Air Quality Management District's Localized Significance Thresholds (LST) Methodology (SCAQMD 2008). In addition, the SDAPCD recommends the use of the rural dispersion coefficient as the modeling default, based on the close proximity to the coastline (SDAPCD 2015c).

The three latest years of AERMOD-ready meteorological data from 2014 through 2016 for the Kearny Mesa Monitoring Station were provided by the SDAPCD for use in AERMOD. The SDAPCD processed the data using EPA's AERMET meteorological data processor.

The cancer risk calculations were performed using the HARP 2 Air Dispersion Modeling and Risk Tool (ADMRT) by importing the predicted annual DPM concentrations from AERMOD for the sensitive receptors, including the Maximally Exposed Individual Resident (MEIR). Cancer risk parameters, such as age sensitivity factors, daily breathing rates, and cancer potency factors were based on the values and data recommended by OEHHA (2015) as implemented in HARP 2. The potential exposure pathway for DPM includes inhalation only. The potential exposure through other pathways (e.g., ingestion) requires substance and site-specific data, and the specific parameters for DPM are not known for these pathways.

For the purposes of this construction HRA, given the less-than-lifetime exposure period, and the higher breathing rates and sensitivity of children to TACs, the cancer risk calculation assumes that the exposure would affect children early in their lives. For the derived cancer risk calculation under the worst-case scenario, the 3-year exposure duration was assumed to start during the third trimester of pregnancy. Additionally, as a conservative assumption, a "fraction at home" factor was not applied for age bins less than 16, whereas OEHHA

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recommends a 0.85 “fraction at home” factor for third trimester through 3 years old for evaluating residential cancer risk.

In addition to the potential cancer risk, DPM has chronic (i.e., long-term) noncarcinogenic health impacts. The chronic hazard index was evaluated using the OEHHA inhalation RELs. The chronic noncarcinogenic inhalation hazard index for construction activities was also calculated using the HARP 2 ADMRT.

### **DPM Concentrations, Cancer Risk, and Chronic Hazard**

The results of the AERMOD and HARP 2 modeling are provided in Appendix D. The modeled maximum annual concentration at the MEIR would be 0.021  $\mu\text{g}/\text{m}^3$ . The associated cancer risk for the child MEIR (exposure starting in third trimester) would be approximately 7.95 in 1 million, which would not exceed the County significance threshold of 10 in 1 million for cancer impacts. The associated chronic hazard index for the child MEIR would be approximately 0.004, which would not exceed the County significance threshold of 1.0 for noncarcinogenic health impacts. Since emissions of DPM generated by construction at the MTBS facility would result in cancer and noncarcinogenic risk below the applicable thresholds, the impact would be less than significant. In addition, as noted in the “Analysis Methodology” section above, since the MTBS site was used as the worse-case exposure scenario, the health risk impacts associated with construction of facilities at the other sites for the Project would also be less than significant. Construction of Project components would not require the extensive use of heavy duty construction equipment, which is subject to a CARB ACTM for in use diesel construction equipment to reduce diesel particulate emissions, and would not involve extensive use of diesel trucks, which are also subject to an ATCM. Construction of Project components would occur in three phases of 2 to 3 years each and would be periodic and short term within each phase. Following completion of construction activities, Project related TAC emissions would cease. Additionally, operational diesel powered generators would only operate during testing and maintenance periods, and during emergency power outages. There were no sensitive receptors identified within 1,000 feet of either treatment facility.

### ***Operational Health Risk Assessment***

As discussed in Section 7.2.2.1, the operational HRA estimated the Maximum Individual Cancer Risk and the Chronic Hazard Index for residential and off-site worker receptors, as well as Acute Hazard Index and the Residential Cancer Burden from the renewable energy facility. Results of the operational HRA are presented in Table 7.4-1.

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**Table 7.4-1  
Operational HRA Results**

Impact Parameter	Receptor Type	Health Risk Impact	Significance Threshold	Significant (Yes/No)
Cancer Risk	PMI	1.16 in a million	10 in a million	No
	MEIR	0.09 in a million	10 in a million	No
	MEIW	0.02 in a million	10 in a million	No
	Maximum Sensitive Receptor	0.08 in a million	10 in a million	No
HIC	PMI	0.056	1	No
	MEIR	0.004	1	No
	MEIW	0.010	1	No
	Maximum Sensitive Receptor	0.004	1	No
HIA	PMI	0.013	1	No
	MEIR	0.002	1	No
	MEIW	0.003	1	No
	Maximum Sensitive Receptor	0.001	1	No
Cancer Burden		0	1	No

**Source:** See Appendix C.

**Notes:** PMI = Point of Maximum Impact; MEIR = Maximally Exposed Individual Resident; MEIW = Maximally Exposed Individual Worker; HIC = Chronic Hazard Index; HIA = Acute Hazard Index

As shown in Table 7.4-1, renewable energy facility would result in a cancer risk, Chronic Hazard Index, Acute Hazard Index, and cancer burden that is well below the SDAPCD threshold of significance. As such, the exposure of project-related TAC emission impacts to sensitive receptors would be **less than significant**.

## Health Impacts of Criteria Air Pollutants

Construction and operation of the North City Project would not result in emissions that exceed the City's emission thresholds for any criteria air pollutants for CO, SO<sub>x</sub>, or PM<sub>2.5</sub>. However, NO<sub>x</sub> and PM<sub>10</sub> emission thresholds would be exceeded during the construction of the San Vicente Reservoir Alternative. Regarding VOCs, some would be associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the City's thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SDAPCD Rule 67.0.1 restricts the VOC content of coatings for both construction and operational applications.

In addition, VOCs and NO<sub>x</sub> are precursors to O<sub>3</sub>, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by the EPA as an attainment area for the 1-hour O<sub>3</sub> NAAQS standard and 1997 8-hour NAAQS standard). The health effects associated with O<sub>3</sub>, as discussed in Section 3.1, are generally associated with reduced lung function. The contribution of VOCs and NO<sub>x</sub> to regional ambient O<sub>3</sub> concentrations

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is the result of complex photochemistry. The increases in O<sub>3</sub> concentrations in the SDAB due to O<sub>3</sub> precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O<sub>3</sub> concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O<sub>3</sub> AAQS tend to occur between April and October when solar radiation is highest.

The holistic effect of a single project's emissions of O<sub>3</sub> precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO<sub>x</sub> emissions associated with Project construction could minimally contribute to regional O<sub>3</sub> concentrations and the associated health impacts. Due to the minimal contribution during construction and operation, as well as the existing good air quality in coastal San Diego areas, health impacts would be considered **less than significant**.

Similar to O<sub>3</sub>, construction of the North City Project would not exceed thresholds for PM<sub>10</sub> or PM<sub>2.5</sub> and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter. The Project would also not result in substantial DPM emissions during construction and operation and would not result in significant health effects related to DPM exposure. Due to the minimal contribution of particulate matter during construction and operation, health impacts would be considered **less than significant**.

Regarding nitrogen dioxide, according to the construction emissions analysis, construction of the North City Project would not contribute to exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. As described in Section 3.1, NO<sub>2</sub> and NO<sub>x</sub> health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term, and the Project would be required to comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Additionally, off-road construction equipment would be operating at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the Project would not require any stationary emission sources that would create substantial, localized NO<sub>x</sub> impacts. Therefore, health impacts would be considered **less than significant**.

The VOC and NO<sub>x</sub> emissions, as described previously, would minimally contribute to regional O<sub>3</sub> concentrations and the associated health effects. In addition to O<sub>3</sub>, NO<sub>x</sub> emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. As shown in Table 5.2-3, the existing NO<sub>2</sub> concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected the Project's operational NO<sub>x</sub> emissions would result in exceedances of the NO<sub>2</sub> standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO "hotspots" were

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discussed previously as a less-than-significant impact. Thus, the Project's CO emissions would not contribute to significant health effects associated with this pollutant. PM<sub>10</sub> and PM<sub>2.5</sub> would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates. Health impacts associated with criteria air pollutants would be considered **less than significant**.

### Mitigation Measures

No mitigation is required for the Miramar Reservoir Alternative or the San Vicente Reservoir Alternative.

### Level of Significance After Mitigation

Impacts associated with the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative would be less than significant without mitigation.

## 7.5 Create Objectionable Odors Affecting a Substantial Number of People

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the Project facilities. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary, and for the types of construction activities anticipated for Project components, would generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered **less than significant**.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative or formulaic methodologies to determine if potential odors would have a significant impact. Examples of land uses and industrial operations that are commonly associated with odor complaints include agricultural uses, wastewater treatment plants, food processing facilities, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. In addition to the odor source, the distance between the sensitive receptor(s) and the odor source, as well as the local meteorological conditions, are considerations in the potential for a project to frequently expose the public to objectionable odors. Although localized air quality impacts are focused on potential impacts to sensitive receptors, such as residences and schools, other land uses where people may congregate (e.g., workplaces) or uses with the intent to attract people (e.g., restaurants and visitor-serving accommodations), should also be considered in the evaluation of potential odor nuisance impacts.

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The North City Project would include the NCPWF, improvements to an existing water reclamation plant, and pump stations. The NCPWF would not result in nuisance odors because the NCPWF would accommodate flows that would have undergone previous tertiary treatment. Additionally, the closest sensitive receptor to the NCPWF is 2,700 feet away.

The Morena Pump Station will also include new facilities to supply ferric chloride and/or high purity oxygen for odor control in the forcemain and a passive odor control system for removing fouled air from the screening facility and pump station wet well. The odor control system at the Morena Pump Station utilizes negative pressure to change out the air in the screening and pump station buildings 20 times every hour. The Morena Pump Station will also add ferrous chloride to control the odor control process by binding the dissolved sulfide in the wastewater into a ferrous sulfide precipitate. The ferrous chloride addition reduces the dissolved sulfide to 0.1 milligrams per liter. Pilot-scale tests conducted in the past indicate that the ratio of ferrous chloride:dissolved sulfide concentration required for adequate treatment is 11:1. The City typically purchases ferrous chloride at 33%, which is equivalent to 3.9 pounds/gallon. This odor-control design feature is anticipated to reduce odors to below nuisance levels. The NCWRP will also receive upgrades to its odor control systems to accommodate the additional wastewater flows. The NCPWF would not result in nuisance odors because it would accommodate flows that would have undergone previous tertiary treatment. There may be potential for odor impacts from the reclamation facility and pump stations. Therefore, the Miramar Reservoir Alternative would have **potentially significant impacts**.

The other lift stations, pipelines, and Dechlorination Facility are not expected to generate odors because they either receive tertiary treated water or purified water. No additional odor control improvements are designed for the MBC as the existing odor control system is adequate for the upgrades. The current system and operating conditions will be managed to maintain compliance with the existing SDAPCD operating permit, which also regulates nuisance odors.

### Mitigation Measures

Mitigation measure MM-AQ-3 is provided to reduce odor impacts for the Miramar Reservoir Alternative and the San Vicente Reservoir Alternative.

**MM-AQ-3** Project components shall implement odor control systems specifically designed to abate the odorous potential of the specific facility. Odor control systems would be similar to those currently employed at City of San Diego wastewater treatment facilities to reduce odor impacts. The following odor control systems or equivalent measures shall be implemented to mitigate nuisance odors:

- a. North City Water Reclamation Plant Expansion and the Morena Pump Station: NaOCl/NaOH Wet Scrubber plus carbon or Biofilter plus carbon.

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- b. Air/vacuum relief valves at high points along the wastewater forcemain: ferric chloride and/or High Purity Oxygen injection.

Alternatively, odors could be abated through the addition of chemicals such as iron chloride, nitrate, hydrogen peroxide, sodium hypochlorite, high purity oxygen, magnesium hydroxide, and/or caustic solutions to reduce the liquid phase concentration and thus, reduce the amount volatilized into the gas phase.

### Level of Significance After Mitigation

As described in MM-AQ-3, the NCWRP, Morena Pump Station, and forcemain associated with the North City Project would include an odor control system, similar to what is employed at the City's other wastewater treatment facilities and pump stations. Following implementation of MM-AQ-3, odor impacts associated with the Miramar Reservoir Alternative and the San Vicente Reservoir Alternatives would be reduced to a level that is **less than significant**.

### 7.6 NEPA Considerations

As shown in Tables 7.2-20 through 7.2-34, the estimated construction and operational criteria emissions for the Miramar Reservoir and San Vicente Reservoir Alternatives do not exceed the federal *de minimis* emissions thresholds as shown in Table 4.1-1. Therefore, the Miramar Reservoir Alternative and San Vicente Reservoir Alternative would have no potentially adverse effects on air quality.



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# Air Quality Technical Report for the North City Project

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# **APPENDIX A**

## *Miramar Reservoir Alternative CalEEMod Outputs and Estimated Emissions*



# **APPENDIX B**

## *San Vicente Reservoir Alternative CalEEMod Outputs and Estimated Emissions*





# **APPENDIX C**

## *North City Project Air Modelling Analysis and Health Risk Assessment Report*



# **APPENDIX D**

***Construction Health Risk Assessment***

***Modeling Outputs***



# **APPENDIX A**

## *Miramar Reservoir Alternative CalEEMod Outputs and Estimated Emissions*



Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	118.50	1000sqft	2.72	118,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.



Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	59250	0
tblAreaCoating	Area_Nonresidential_Interior	177750	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	135.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblConstructionPhase	NumDays	10.00	134.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	146.94	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	19.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	50.00	64.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	27,403,125.00	0.00

**2.0 Emissions Summary**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2020	12-31-2020	0.6593	0.3958
2	1-1-2021	3-31-2021	0.5820	0.3851
3	4-1-2021	6-30-2021	0.4714	0.3938
4	7-1-2021	9-30-2021	0.4700	0.3938
		Highest	0.6593	0.3958

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4629	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1200e-003	2.1200e-003	1.0000e-005	0.0000	2.2600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4629</b>	<b>1.0000e-005</b>	<b>1.0900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1200e-003</b>	<b>2.1200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.2600e-003</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4629	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4629</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1400e-003</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-003</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.01</b>	<b>0.00</b>	<b>42.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>46.23</b>	<b>46.23</b>	<b>100.00</b>	<b>0.00</b>	<b>46.90</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	3/20/2020	9/24/2020	5	135	
2	Building Construction	Building Construction	9/25/2020	4/1/2021	5	135	Pipeline installation and backfill.
3	Paving	Paving	4/1/2021	10/5/2021	5	134	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	64.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2920	2.9365	1.9703	3.1400e-003		0.1650	0.1650		0.1518	0.1518	0.0000	276.2689	276.2689	0.0894	0.0000	278.5027
<b>Total</b>	<b>0.2920</b>	<b>2.9365</b>	<b>1.9703</b>	<b>3.1400e-003</b>		<b>0.1650</b>	<b>0.1650</b>		<b>0.1518</b>	<b>0.1518</b>	<b>0.0000</b>	<b>276.2689</b>	<b>276.2689</b>	<b>0.0894</b>	<b>0.0000</b>	<b>278.5027</b>



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**3.2 Trenching - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	7.1100e-003	1.6300e-003	2.0000e-005	4.3000e-004	2.0000e-005	4.5000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.9281	1.9281	1.7000e-004	0.0000	1.9325
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0900e-003	7.1200e-003	0.0680	2.2000e-004	0.0219	1.5000e-004	0.0220	5.8100e-003	1.4000e-004	5.9500e-003	0.0000	19.5885	19.5885	5.7000e-004	0.0000	19.6027
<b>Total</b>	<b>9.2900e-003</b>	<b>0.0142</b>	<b>0.0697</b>	<b>2.4000e-004</b>	<b>0.0223</b>	<b>1.7000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.6000e-004</b>	<b>6.0900e-003</b>	<b>0.0000</b>	<b>21.5166</b>	<b>21.5166</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>21.5352</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0770	1.6001	2.1165	3.1400e-003		0.0874	0.0874		0.0874	0.0874	0.0000	276.2686	276.2686	0.0894	0.0000	278.5024
<b>Total</b>	<b>0.0770</b>	<b>1.6001</b>	<b>2.1165</b>	<b>3.1400e-003</b>		<b>0.0874</b>	<b>0.0874</b>		<b>0.0874</b>	<b>0.0874</b>	<b>0.0000</b>	<b>276.2686</b>	<b>276.2686</b>	<b>0.0894</b>	<b>0.0000</b>	<b>278.5024</b>

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**3.2 Trenching - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	7.1100e-003	1.6300e-003	2.0000e-005	4.3000e-004	2.0000e-005	4.5000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.9281	1.9281	1.7000e-004	0.0000	1.9325
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0900e-003	7.1200e-003	0.0680	2.2000e-004	0.0219	1.5000e-004	0.0220	5.8100e-003	1.4000e-004	5.9500e-003	0.0000	19.5885	19.5885	5.7000e-004	0.0000	19.6027
<b>Total</b>	<b>9.2900e-003</b>	<b>0.0142</b>	<b>0.0697</b>	<b>2.4000e-004</b>	<b>0.0223</b>	<b>1.7000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.6000e-004</b>	<b>6.0900e-003</b>	<b>0.0000</b>	<b>21.5166</b>	<b>21.5166</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>21.5352</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0565	0.6156	0.3903	7.3000e-004		0.0316	0.0316		0.0291	0.0291	0.0000	63.9849	63.9849	0.0207	0.0000	64.5022
<b>Total</b>	<b>0.0565</b>	<b>0.6156</b>	<b>0.3903</b>	<b>7.3000e-004</b>		<b>0.0316</b>	<b>0.0316</b>		<b>0.0291</b>	<b>0.0291</b>	<b>0.0000</b>	<b>63.9849</b>	<b>63.9849</b>	<b>0.0207</b>	<b>0.0000</b>	<b>64.5022</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	7.6300e-003	2.0200e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.7053	1.7053	1.3000e-004	0.0000	1.7087
Worker	0.0116	9.0900e-003	0.0868	2.8000e-004	0.0279	1.9000e-004	0.0281	7.4200e-003	1.8000e-004	7.6000e-003	0.0000	25.0018	25.0018	7.3000e-004	0.0000	25.0200
<b>Total</b>	<b>0.0119</b>	<b>0.0167</b>	<b>0.0889</b>	<b>3.0000e-004</b>	<b>0.0284</b>	<b>2.3000e-004</b>	<b>0.0286</b>	<b>7.5400e-003</b>	<b>2.1000e-004</b>	<b>7.7600e-003</b>	<b>0.0000</b>	<b>26.7071</b>	<b>26.7071</b>	<b>8.6000e-004</b>	<b>0.0000</b>	<b>26.7287</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0179	0.3735	0.4603	7.3000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	63.9848	63.9848	0.0207	0.0000	64.5021
<b>Total</b>	<b>0.0179</b>	<b>0.3735</b>	<b>0.4603</b>	<b>7.3000e-004</b>		<b>0.0200</b>	<b>0.0200</b>		<b>0.0200</b>	<b>0.0200</b>	<b>0.0000</b>	<b>63.9848</b>	<b>63.9848</b>	<b>0.0207</b>	<b>0.0000</b>	<b>64.5021</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	7.6300e-003	2.0200e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.7053	1.7053	1.3000e-004	0.0000	1.7087
Worker	0.0116	9.0900e-003	0.0868	2.8000e-004	0.0279	1.9000e-004	0.0281	7.4200e-003	1.8000e-004	7.6000e-003	0.0000	25.0018	25.0018	7.3000e-004	0.0000	25.0200
<b>Total</b>	<b>0.0119</b>	<b>0.0167</b>	<b>0.0889</b>	<b>3.0000e-004</b>	<b>0.0284</b>	<b>2.3000e-004</b>	<b>0.0286</b>	<b>7.5400e-003</b>	<b>2.1000e-004</b>	<b>7.7600e-003</b>	<b>0.0000</b>	<b>26.7071</b>	<b>26.7071</b>	<b>8.6000e-004</b>	<b>0.0000</b>	<b>26.7287</b>

**3.3 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0474	0.5151	0.3517	6.8000e-004		0.0255	0.0255		0.0235	0.0235	0.0000	59.4193	59.4193	0.0192	0.0000	59.8997
<b>Total</b>	<b>0.0474</b>	<b>0.5151</b>	<b>0.3517</b>	<b>6.8000e-004</b>		<b>0.0255</b>	<b>0.0255</b>		<b>0.0235</b>	<b>0.0235</b>	<b>0.0000</b>	<b>59.4193</b>	<b>59.4193</b>	<b>0.0192</b>	<b>0.0000</b>	<b>59.8997</b>

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**3.3 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	6.4100e-003	1.7000e-003	2.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.5689	1.5689	1.2000e-004	0.0000	1.5719
Worker	0.0102	7.6700e-003	0.0754	2.5000e-004	0.0259	1.8000e-004	0.0261	6.8900e-003	1.6000e-004	7.0500e-003	0.0000	22.4355	22.4355	6.2000e-004	0.0000	22.4511
<b>Total</b>	<b>0.0104</b>	<b>0.0141</b>	<b>0.0771</b>	<b>2.7000e-004</b>	<b>0.0263</b>	<b>1.9000e-004</b>	<b>0.0265</b>	<b>7.0000e-003</b>	<b>1.7000e-004</b>	<b>7.1800e-003</b>	<b>0.0000</b>	<b>24.0044</b>	<b>24.0044</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>24.0230</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0166	0.3468	0.4274	6.8000e-004		0.0186	0.0186		0.0186	0.0186	0.0000	59.4192	59.4192	0.0192	0.0000	59.8996
<b>Total</b>	<b>0.0166</b>	<b>0.3468</b>	<b>0.4274</b>	<b>6.8000e-004</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>	<b>0.0000</b>	<b>59.4192</b>	<b>59.4192</b>	<b>0.0192</b>	<b>0.0000</b>	<b>59.8996</b>

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**3.3 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	6.4100e-003	1.7000e-003	2.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.5689	1.5689	1.2000e-004	0.0000	1.5719
Worker	0.0102	7.6700e-003	0.0754	2.5000e-004	0.0259	1.8000e-004	0.0261	6.8900e-003	1.6000e-004	7.0500e-003	0.0000	22.4355	22.4355	6.2000e-004	0.0000	22.4511
<b>Total</b>	<b>0.0104</b>	<b>0.0141</b>	<b>0.0771</b>	<b>2.7000e-004</b>	<b>0.0263</b>	<b>1.9000e-004</b>	<b>0.0265</b>	<b>7.0000e-003</b>	<b>1.7000e-004</b>	<b>7.1800e-003</b>	<b>0.0000</b>	<b>24.0044</b>	<b>24.0044</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>24.0230</b>

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0841	0.8656	0.9818	1.5300e-003		0.0454	0.0454		0.0418	0.0418	0.0000	134.1573	134.1573	0.0434	0.0000	135.2421
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0841</b>	<b>0.8656</b>	<b>0.9818</b>	<b>1.5300e-003</b>		<b>0.0454</b>	<b>0.0454</b>		<b>0.0418</b>	<b>0.0418</b>	<b>0.0000</b>	<b>134.1573</b>	<b>134.1573</b>	<b>0.0434</b>	<b>0.0000</b>	<b>135.2421</b>

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**3.4 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2500e-003	3.9600e-003	0.0389	1.3000e-004	0.0134	9.0000e-005	0.0135	3.5500e-003	8.0000e-005	3.6300e-003	0.0000	11.5629	11.5629	3.2000e-004	0.0000	11.5709
<b>Total</b>	<b>5.2500e-003</b>	<b>3.9600e-003</b>	<b>0.0389</b>	<b>1.3000e-004</b>	<b>0.0134</b>	<b>9.0000e-005</b>	<b>0.0135</b>	<b>3.5500e-003</b>	<b>8.0000e-005</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>11.5629</b>	<b>11.5629</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>11.5709</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0376	0.7568	1.1588	1.5300e-003		0.0408	0.0408		0.0408	0.0408	0.0000	134.1572	134.1572	0.0434	0.0000	135.2419
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0376</b>	<b>0.7568</b>	<b>1.1588</b>	<b>1.5300e-003</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>134.1572</b>	<b>134.1572</b>	<b>0.0434</b>	<b>0.0000</b>	<b>135.2419</b>

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**3.4 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2500e-003	3.9600e-003	0.0389	1.3000e-004	0.0134	9.0000e-005	0.0135	3.5500e-003	8.0000e-005	3.6300e-003	0.0000	11.5629	11.5629	3.2000e-004	0.0000	11.5709
<b>Total</b>	<b>5.2500e-003</b>	<b>3.9600e-003</b>	<b>0.0389</b>	<b>1.3000e-004</b>	<b>0.0134</b>	<b>9.0000e-005</b>	<b>0.0135</b>	<b>3.5500e-003</b>	<b>8.0000e-005</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>11.5629</b>	<b>11.5629</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>11.5709</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4629	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2000e-003
Unmitigated	0.4629	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1200e-003	2.1200e-003	1.0000e-005	0.0000	2.2600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4628					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1200e-003	2.1200e-003	1.0000e-005	0.0000	2.2600e-003
<b>Total</b>	<b>0.4629</b>	<b>1.0000e-005</b>	<b>1.0900e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1200e-003</b>	<b>2.1200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.2600e-003</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4628					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2000e-003
<b>Total</b>	<b>0.4628</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1400e-003</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	118.50	1000sqft	2.72	118,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	59250	0
tblAreaCoating	Area_Nonresidential_Interior	177750	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	135.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblConstructionPhase	NumDays	10.00	134.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	146.94	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	19.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	50.00	64.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	27,403,125.00	0.00

**2.0 Emissions Summary**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0277</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0147</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	45.45	42.06	0.00	0.00	50.00	50.00	0.00	50.00	50.00	0.00	46.09	46.09	57.14	0.00	46.85

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	3/20/2020	9/24/2020	5	135	
2	Building Construction	Building Construction	9/25/2020	4/1/2021	5	135	Pipeline installation and backfill.
3	Paving	Paving	4/1/2021	10/5/2021	5	134	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	64.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3264	43.5035	29.1902	0.0466		2.4447	2.4447		2.2491	2.2491		4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>4.3264</b>	<b>43.5035</b>	<b>29.1902</b>	<b>0.0466</b>		<b>2.4447</b>	<b>2.4447</b>		<b>2.2491</b>	<b>2.2491</b>		<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9300e-003	0.1033	0.0235	2.9000e-004	6.4700e-003	3.3000e-004	6.8000e-003	1.7700e-003	3.2000e-004	2.0900e-003		31.7158	31.7158	2.7900e-003		31.7857
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.1352</b>	<b>0.1988</b>	<b>1.1077</b>	<b>3.6800e-003</b>	<b>0.3386</b>	<b>2.5700e-003</b>	<b>0.3411</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>369.2262</b>	<b>369.2262</b>	<b>0.0126</b>		<b>369.5415</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9300e-003	0.1033	0.0235	2.9000e-004	6.4700e-003	3.3000e-004	6.8000e-003	1.7700e-003	3.2000e-004	2.0900e-003		31.7158	31.7158	2.7900e-003		31.7857
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.1352</b>	<b>0.1988</b>	<b>1.1077</b>	<b>3.6800e-003</b>	<b>0.3386</b>	<b>2.5700e-003</b>	<b>0.3411</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>369.2262</b>	<b>369.2262</b>	<b>0.0126</b>		<b>369.5415</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6138	17.5884	11.1507	0.0208		0.9041	0.9041		0.8318	0.8318		2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>1.6138</b>	<b>17.5884</b>	<b>11.1507</b>	<b>0.0208</b>		<b>0.9041</b>	<b>0.9041</b>		<b>0.8318</b>	<b>0.8318</b>		<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.3255	0.2351	2.6690	8.3400e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		830.7949	830.7949	0.0242		831.3991
<b>Total</b>	<b>0.3325</b>	<b>0.4509</b>	<b>2.7237</b>	<b>8.8500e-003</b>	<b>0.8297</b>	<b>6.5200e-003</b>	<b>0.8362</b>	<b>0.2203</b>	<b>6.0400e-003</b>	<b>0.2264</b>		<b>885.1383</b>	<b>885.1383</b>	<b>0.0283</b>		<b>885.8457</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.3255	0.2351	2.6690	8.3400e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		830.7949	830.7949	0.0242		831.3991
<b>Total</b>	<b>0.3325</b>	<b>0.4509</b>	<b>2.7237</b>	<b>8.8500e-003</b>	<b>0.8297</b>	<b>6.5200e-003</b>	<b>0.8362</b>	<b>0.2203</b>	<b>6.0400e-003</b>	<b>0.2264</b>		<b>885.1383</b>	<b>885.1383</b>	<b>0.0283</b>		<b>885.8457</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4590	15.8485	10.8219	0.0208		0.7847	0.7847		0.7219	0.7219		2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>1.4590</b>	<b>15.8485</b>	<b>10.8219</b>	<b>0.0208</b>		<b>0.7847</b>	<b>0.7847</b>		<b>0.7219</b>	<b>0.7219</b>		<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.3073	0.2139	2.5009	8.0500e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		802.8712	802.8712	0.0223		803.4298
<b>Total</b>	<b>0.3131</b>	<b>0.4095</b>	<b>2.5503</b>	<b>8.5500e-003</b>	<b>0.8297</b>	<b>5.8200e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3700e-003</b>	<b>0.2257</b>		<b>856.7175</b>	<b>856.7175</b>	<b>0.0263</b>		<b>857.3750</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.3073	0.2139	2.5009	8.0500e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		802.8712	802.8712	0.0223		803.4298
<b>Total</b>	<b>0.3131</b>	<b>0.4095</b>	<b>2.5503</b>	<b>8.5500e-003</b>	<b>0.8297</b>	<b>5.8200e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3700e-003</b>	<b>0.2257</b>		<b>856.7175</b>	<b>856.7175</b>	<b>0.0263</b>		<b>857.3750</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

**4.0 Operational Detail - Mobile**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Unmitigated	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1300e-003	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>		<b>0.0277</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>		<b>0.0147</b>

**7.0 Water Detail**



## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	118.50	1000sqft	2.72	118,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	59250	0
tblAreaCoating	Area_Nonresidential_Interior	177750	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	135.00

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tblConstructionPhase	NumDays	10.00	134.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	146.94	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	19.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	50.00	64.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	27,403,125.00	0.00

**2.0 Emissions Summary**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0277</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0147</b>



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	45.45	42.06	0.00	0.00	50.00	50.00	0.00	50.00	50.00	0.00	46.09	46.09	57.14	0.00	46.85

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	3/20/2020	9/24/2020	5	135	
2	Building Construction	Building Construction	9/25/2020	4/1/2021	5	135	Pipeline installation and backfill.
3	Paving	Paving	4/1/2021	10/5/2021	5	134	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	64.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3264	43.5035	29.1902	0.0466		2.4447	2.4447		2.2491	2.2491		4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>4.3264</b>	<b>43.5035</b>	<b>29.1902</b>	<b>0.0466</b>		<b>2.4447</b>	<b>2.4447</b>		<b>2.2491</b>	<b>2.2491</b>		<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0100e-003	0.1043	0.0250	2.8000e-004	6.4700e-003	3.4000e-004	6.8100e-003	1.7700e-003	3.2000e-004	2.1000e-003		31.1717	31.1717	2.8900e-003		31.2439
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.1564</b>	<b>0.2115</b>	<b>1.0263</b>	<b>3.4600e-003</b>	<b>0.3386</b>	<b>2.5800e-003</b>	<b>0.3412</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>347.8751</b>	<b>347.8751</b>	<b>0.0121</b>		<b>348.1775</b>

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**3.2 Trenching - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0100e-003	0.1043	0.0250	2.8000e-004	6.4700e-003	3.4000e-004	6.8100e-003	1.7700e-003	3.2000e-004	2.1000e-003		31.1717	31.1717	2.8900e-003		31.2439
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.1564</b>	<b>0.2115</b>	<b>1.0263</b>	<b>3.4600e-003</b>	<b>0.3386</b>	<b>2.5800e-003</b>	<b>0.3412</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>347.8751</b>	<b>347.8751</b>	<b>0.0121</b>		<b>348.1775</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6138	17.5884	11.1507	0.0208		0.9041	0.9041		0.8318	0.8318		2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>1.6138</b>	<b>17.5884</b>	<b>11.1507</b>	<b>0.0208</b>		<b>0.9041</b>	<b>0.9041</b>		<b>0.8318</b>	<b>0.8318</b>		<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.3775	0.2639	2.4648	7.8200e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		779.5776	779.5776	0.0227		780.1441
<b>Total</b>	<b>0.3848</b>	<b>0.4791</b>	<b>2.5258</b>	<b>8.3100e-003</b>	<b>0.8297</b>	<b>6.5500e-003</b>	<b>0.8363</b>	<b>0.2203</b>	<b>6.0600e-003</b>	<b>0.2264</b>		<b>832.4054</b>	<b>832.4054</b>	<b>0.0271</b>		<b>833.0819</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.3775	0.2639	2.4648	7.8200e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		779.5776	779.5776	0.0227		780.1441
<b>Total</b>	<b>0.3848</b>	<b>0.4791</b>	<b>2.5258</b>	<b>8.3100e-003</b>	<b>0.8297</b>	<b>6.5500e-003</b>	<b>0.8363</b>	<b>0.2203</b>	<b>6.0600e-003</b>	<b>0.2264</b>		<b>832.4054</b>	<b>832.4054</b>	<b>0.0271</b>		<b>833.0819</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4590	15.8485	10.8219	0.0208		0.7847	0.7847		0.7219	0.7219		2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>1.4590</b>	<b>15.8485</b>	<b>10.8219</b>	<b>0.0208</b>		<b>0.7847</b>	<b>0.7847</b>		<b>0.7219</b>	<b>0.7219</b>		<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.3569	0.2400	2.3036	7.5600e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		753.3624	753.3624	0.0209		753.8854
<b>Total</b>	<b>0.3630</b>	<b>0.4348</b>	<b>2.3589</b>	<b>8.0500e-003</b>	<b>0.8297</b>	<b>5.8400e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3900e-003</b>	<b>0.2257</b>		<b>805.7022</b>	<b>805.7022</b>	<b>0.0251</b>		<b>806.3306</b>

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**3.3 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.3569	0.2400	2.3036	7.5600e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		753.3624	753.3624	0.0209		753.8854
<b>Total</b>	<b>0.3630</b>	<b>0.4348</b>	<b>2.3589</b>	<b>8.0500e-003</b>	<b>0.8297</b>	<b>5.8400e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3900e-003</b>	<b>0.2257</b>		<b>805.7022</b>	<b>805.7022</b>	<b>0.0251</b>		<b>806.3306</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

**4.0 Operational Detail - Mobile**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Unmitigated	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1300e-003	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>		<b>0.0277</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>		<b>0.0147</b>

**7.0 Water Detail**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**Landfill Gas Pipeline-Trenchless**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

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Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	NumDays	1.00	120.00
tblConstructionPhase	NumDays	1.00	120.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

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tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	21.00	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0135	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0135</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0125	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0125</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.49	0.00	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	57.14

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	3/2/2020	3/27/2020	5	20	
2	Portal Excavation	Site Preparation	3/30/2020	9/11/2020	5	120	
3	Site Restoration	Site Preparation	9/14/2020	2/26/2021	5	120	
4	Tunnel Excavation	Trenching	3/1/2021	10/5/2021	5	157	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Site Preparation at Portal Sites - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0168	0.2018	0.1155	2.5000e-004		7.9400e-003	7.9400e-003		7.3000e-003	7.3000e-003	0.0000	21.8677	21.8677	7.0700e-003	0.0000	22.0445
<b>Total</b>	<b>0.0168</b>	<b>0.2018</b>	<b>0.1155</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>7.9400e-003</b>	<b>7.9400e-003</b>	<b>0.0000</b>	<b>7.3000e-003</b>	<b>7.3000e-003</b>	<b>0.0000</b>	<b>21.8677</b>	<b>21.8677</b>	<b>7.0700e-003</b>	<b>0.0000</b>	<b>22.0445</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.1000e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0000e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8929	0.8929	3.0000e-005	0.0000	0.8936
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.1000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8929</b>	<b>0.8929</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8936</b>

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**3.2 Site Preparation at Portal Sites - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7800e-003	0.1199	0.1395	2.5000e-004		5.1100e-003	5.1100e-003		5.1400e-003	5.1400e-003	0.0000	21.8677	21.8677	7.0700e-003	0.0000	22.0445
<b>Total</b>	<b>5.7800e-003</b>	<b>0.1199</b>	<b>0.1395</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>5.1100e-003</b>	<b>5.1100e-003</b>	<b>0.0000</b>	<b>5.1400e-003</b>	<b>5.1400e-003</b>	<b>0.0000</b>	<b>21.8677</b>	<b>21.8677</b>	<b>7.0700e-003</b>	<b>0.0000</b>	<b>22.0445</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.1000e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0000e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8929	0.8929	3.0000e-005	0.0000	0.8936
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.1000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8929</b>	<b>0.8929</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8936</b>

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**3.3 Portal Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2590	0.0000	0.2590	0.1423	0.0000	0.1423	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1504	1.4067	1.0001	1.6300e-003		0.0798	0.0798		0.0746	0.0746	0.0000	142.5861	142.5861	0.0371	0.0000	143.5134
<b>Total</b>	<b>0.1504</b>	<b>1.4067</b>	<b>1.0001</b>	<b>1.6300e-003</b>	<b>0.2590</b>	<b>0.0798</b>	<b>0.3388</b>	<b>0.1423</b>	<b>0.0746</b>	<b>0.2169</b>	<b>0.0000</b>	<b>142.5861</b>	<b>142.5861</b>	<b>0.0371</b>	<b>0.0000</b>	<b>143.5134</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9700e-003	3.8900e-003	0.0372	1.2000e-004	0.0120	8.0000e-005	0.0121	3.1800e-003	8.0000e-005	3.2600e-003	0.0000	10.7151	10.7151	3.1000e-004	0.0000	10.7229
<b>Total</b>	<b>4.9700e-003</b>	<b>3.8900e-003</b>	<b>0.0372</b>	<b>1.2000e-004</b>	<b>0.0120</b>	<b>8.0000e-005</b>	<b>0.0121</b>	<b>3.1800e-003</b>	<b>8.0000e-005</b>	<b>3.2600e-003</b>	<b>0.0000</b>	<b>10.7151</b>	<b>10.7151</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>10.7229</b>

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**3.3 Portal Excavation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1165	0.0000	0.1165	0.0641	0.0000	0.0641	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0361	0.7938	1.0607	1.6300e-003		0.0448	0.0448		0.0450	0.0450	0.0000	142.5860	142.5860	0.0371	0.0000	143.5132
<b>Total</b>	<b>0.0361</b>	<b>0.7938</b>	<b>1.0607</b>	<b>1.6300e-003</b>	<b>0.1165</b>	<b>0.0448</b>	<b>0.1614</b>	<b>0.0641</b>	<b>0.0450</b>	<b>0.1090</b>	<b>0.0000</b>	<b>142.5860</b>	<b>142.5860</b>	<b>0.0371</b>	<b>0.0000</b>	<b>143.5132</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9700e-003	3.8900e-003	0.0372	1.2000e-004	0.0120	8.0000e-005	0.0121	3.1800e-003	8.0000e-005	3.2600e-003	0.0000	10.7151	10.7151	3.1000e-004	0.0000	10.7229
<b>Total</b>	<b>4.9700e-003</b>	<b>3.8900e-003</b>	<b>0.0372</b>	<b>1.2000e-004</b>	<b>0.0120</b>	<b>8.0000e-005</b>	<b>0.0121</b>	<b>3.1800e-003</b>	<b>8.0000e-005</b>	<b>3.2600e-003</b>	<b>0.0000</b>	<b>10.7151</b>	<b>10.7151</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>10.7229</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2800e-003	0.0832	0.0901	1.2000e-004		5.2600e-003	5.2600e-003		4.8400e-003	4.8400e-003	0.0000	10.7777	10.7777	3.4900e-003	0.0000	10.8648
<b>Total</b>	<b>8.2800e-003</b>	<b>0.0832</b>	<b>0.0901</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>5.2600e-003</b>	<b>5.2600e-003</b>	<b>0.0000</b>	<b>4.8400e-003</b>	<b>4.8400e-003</b>	<b>0.0000</b>	<b>10.7777</b>	<b>10.7777</b>	<b>3.4900e-003</b>	<b>0.0000</b>	<b>10.8648</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.4000e-004	6.1300e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7635	1.7635	5.0000e-005	0.0000	1.7648
<b>Total</b>	<b>8.2000e-004</b>	<b>6.4000e-004</b>	<b>6.1300e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>1.9800e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7635</b>	<b>1.7635</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7648</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6800e-003	0.0649	0.0931	1.2000e-004		4.6900e-003	4.6900e-003		4.7900e-003	4.7900e-003	0.0000	10.7777	10.7777	3.4900e-003	0.0000	10.8648
<b>Total</b>	<b>1.6800e-003</b>	<b>0.0649</b>	<b>0.0931</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>4.7900e-003</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>10.7777</b>	<b>10.7777</b>	<b>3.4900e-003</b>	<b>0.0000</b>	<b>10.8648</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.4000e-004	6.1300e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7635	1.7635	5.0000e-005	0.0000	1.7648
<b>Total</b>	<b>8.2000e-004</b>	<b>6.4000e-004</b>	<b>6.1300e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>1.9800e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7635</b>	<b>1.7635</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7648</b>

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**3.4 Site Restoration - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8400e-003	0.0389	0.0463	6.0000e-005		2.2900e-003	2.2900e-003		2.1100e-003	2.1100e-003	0.0000	5.5959	5.5959	1.8100e-003	0.0000	5.6412
<b>Total</b>	<b>3.8400e-003</b>	<b>0.0389</b>	<b>0.0463</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.2900e-003</b>	<b>2.2900e-003</b>	<b>0.0000</b>	<b>2.1100e-003</b>	<b>2.1100e-003</b>	<b>0.0000</b>	<b>5.5959</b>	<b>5.5959</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>5.6412</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	3.0000e-004	2.9700e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8845	0.8845	2.0000e-005	0.0000	0.8851
<b>Total</b>	<b>4.0000e-004</b>	<b>3.0000e-004</b>	<b>2.9700e-003</b>	<b>1.0000e-005</b>	<b>1.0200e-003</b>	<b>1.0000e-005</b>	<b>1.0300e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>0.8845</b>	<b>0.8845</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8851</b>



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**3.4 Site Restoration - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9000e-004	0.0347	0.0484	6.0000e-005		2.5400e-003	2.5400e-003		2.5900e-003	2.5900e-003	0.0000	5.5959	5.5959	1.8100e-003	0.0000	5.6412
<b>Total</b>	<b>9.9000e-004</b>	<b>0.0347</b>	<b>0.0484</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.5400e-003</b>	<b>2.5400e-003</b>	<b>0.0000</b>	<b>2.5900e-003</b>	<b>2.5900e-003</b>	<b>0.0000</b>	<b>5.5959</b>	<b>5.5959</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>5.6412</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	3.0000e-004	2.9700e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8845	0.8845	2.0000e-005	0.0000	0.8851
<b>Total</b>	<b>4.0000e-004</b>	<b>3.0000e-004</b>	<b>2.9700e-003</b>	<b>1.0000e-005</b>	<b>1.0200e-003</b>	<b>1.0000e-005</b>	<b>1.0300e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>0.8845</b>	<b>0.8845</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8851</b>

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**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1851	1.7292	1.2965	2.1300e-003		0.0951	0.0951		0.0888	0.0888	0.0000	186.5733	186.5733	0.0483	0.0000	187.7804
<b>Total</b>	<b>0.1851</b>	<b>1.7292</b>	<b>1.2965</b>	<b>2.1300e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0888</b>	<b>0.0888</b>	<b>0.0000</b>	<b>186.5733</b>	<b>186.5733</b>	<b>0.0483</b>	<b>0.0000</b>	<b>187.7804</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0155	4.1100e-003	4.0000e-005	9.4000e-004	3.0000e-005	9.7000e-004	2.7000e-004	3.0000e-005	3.0000e-004	0.0000	3.7896	3.7896	2.9000e-004	0.0000	3.7968
Worker	9.9900e-003	7.5300e-003	0.0740	2.4000e-004	0.0255	1.7000e-004	0.0256	6.7600e-003	1.6000e-004	6.9200e-003	0.0000	22.0148	22.0148	6.1000e-004	0.0000	22.0301
<b>Total</b>	<b>0.0105</b>	<b>0.0230</b>	<b>0.0781</b>	<b>2.8000e-004</b>	<b>0.0264</b>	<b>2.0000e-004</b>	<b>0.0266</b>	<b>7.0300e-003</b>	<b>1.9000e-004</b>	<b>7.2200e-003</b>	<b>0.0000</b>	<b>25.8044</b>	<b>25.8044</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>25.8269</b>

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**3.5 Tunnel Excavation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0477	1.0426	1.3881	2.1300e-003		0.0591	0.0591		0.0593	0.0593	0.0000	186.5731	186.5731	0.0483	0.0000	187.7802
<b>Total</b>	<b>0.0477</b>	<b>1.0426</b>	<b>1.3881</b>	<b>2.1300e-003</b>		<b>0.0591</b>	<b>0.0591</b>		<b>0.0593</b>	<b>0.0593</b>	<b>0.0000</b>	<b>186.5731</b>	<b>186.5731</b>	<b>0.0483</b>	<b>0.0000</b>	<b>187.7802</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0155	4.1100e-003	4.0000e-005	9.4000e-004	3.0000e-005	9.7000e-004	2.7000e-004	3.0000e-005	3.0000e-004	0.0000	3.7896	3.7896	2.9000e-004	0.0000	3.7968
Worker	9.9900e-003	7.5300e-003	0.0740	2.4000e-004	0.0255	1.7000e-004	0.0256	6.7600e-003	1.6000e-004	6.9200e-003	0.0000	22.0148	22.0148	6.1000e-004	0.0000	22.0301
<b>Total</b>	<b>0.0105</b>	<b>0.0230</b>	<b>0.0781</b>	<b>2.8000e-004</b>	<b>0.0264</b>	<b>2.0000e-004</b>	<b>0.0266</b>	<b>7.0300e-003</b>	<b>1.9000e-004</b>	<b>7.2200e-003</b>	<b>0.0000</b>	<b>25.8044</b>	<b>25.8044</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>25.8269</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193





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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0125	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0135	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005



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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0135					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005
<b>Total</b>	<b>0.0135</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.0125</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**Landfill Gas Pipeline-Trenchless**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	NumDays	1.00	120.00
tblConstructionPhase	NumDays	1.00	120.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00



## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	21.00	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.1000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.51	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.05	46.05	0.00	0.00	46.91

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	3/2/2020	3/27/2020	5	20	
2	Portal Excavation	Site Preparation	3/30/2020	9/11/2020	5	120	
3	Site Restoration	Site Preparation	9/14/2020	2/26/2021	5	120	
4	Tunnel Excavation	Trenching	3/1/2021	10/5/2021	5	157	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Site Preparation at Portal Sites - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302		2,410.5023	2,410.5023	0.7796		2,429.9924
<b>Total</b>	<b>1.6782</b>	<b>20.1828</b>	<b>11.5528</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.7937</b>	<b>0.7937</b>	<b>0.0000</b>	<b>0.7302</b>	<b>0.7302</b>		<b>2,410.5023</b>	<b>2,410.5023</b>	<b>0.7796</b>		<b>2,429.9924</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0407	0.0294	0.3336	1.0400e-003	0.1022	6.9000e-004	0.1029	0.0271	6.4000e-004	0.0277		103.8494	103.8494	3.0200e-003		103.9249
<b>Total</b>	<b>0.0407</b>	<b>0.0294</b>	<b>0.3336</b>	<b>1.0400e-003</b>	<b>0.1022</b>	<b>6.9000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.4000e-004</b>	<b>0.0277</b>		<b>103.8494</b>	<b>103.8494</b>	<b>3.0200e-003</b>		<b>103.9249</b>

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**3.2 Site Preparation at Portal Sites - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5777	11.9870	13.9515	0.0249		0.5110	0.5110		0.5137	0.5137	0.0000	2,410.502 3	2,410.502 3	0.7796		2,429.992 4
<b>Total</b>	<b>0.5777</b>	<b>11.9870</b>	<b>13.9515</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5110</b>	<b>0.5110</b>	<b>0.0000</b>	<b>0.5137</b>	<b>0.5137</b>	<b>0.0000</b>	<b>2,410.502 3</b>	<b>2,410.502 3</b>	<b>0.7796</b>		<b>2,429.992 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0407	0.0294	0.3336	1.0400e-003	0.1022	6.9000e-004	0.1029	0.0271	6.4000e-004	0.0277		103.8494	103.8494	3.0200e-003		103.9249
<b>Total</b>	<b>0.0407</b>	<b>0.0294</b>	<b>0.3336</b>	<b>1.0400e-003</b>	<b>0.1022</b>	<b>6.9000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.4000e-004</b>	<b>0.0277</b>		<b>103.8494</b>	<b>103.8494</b>	<b>3.0200e-003</b>		<b>103.9249</b>

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**3.3 Portal Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3158	0.0000	4.3158	2.3723	0.0000	2.3723			0.0000			0.0000
Off-Road	2.5068	23.4458	16.6677	0.0272		1.3301	1.3301		1.2430	1.2430		2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>2.5068</b>	<b>23.4458</b>	<b>16.6677</b>	<b>0.0272</b>	<b>4.3158</b>	<b>1.3301</b>	<b>5.6459</b>	<b>2.3723</b>	<b>1.2430</b>	<b>3.6153</b>		<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>



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**3.3 Portal Excavation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9421	0.0000	1.9421	1.0676	0.0000	1.0676			0.0000			0.0000
Off-Road	0.6016	13.2298	17.6778	0.0272		0.7472	0.7472		0.7498	0.7498	0.0000	2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>0.6016</b>	<b>13.2298</b>	<b>17.6778</b>	<b>0.0272</b>	<b>1.9421</b>	<b>0.7472</b>	<b>2.6893</b>	<b>1.0676</b>	<b>0.7498</b>	<b>1.8174</b>	<b>0.0000</b>	<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0426	1.6417	2.3577	3.1100e-003		0.1186	0.1186		0.1213	0.1213	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0426</b>	<b>1.6417</b>	<b>2.3577</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1186</b>	<b>0.1186</b>	<b>0.0000</b>	<b>0.1213</b>	<b>0.1213</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

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**3.4 Site Restoration - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
<b>Total</b>	<b>0.1873</b>	<b>1.8958</b>	<b>2.2602</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1118</b>	<b>0.1118</b>	<b>0.0000</b>	<b>0.1028</b>	<b>0.1028</b>		<b>300.9001</b>	<b>300.9001</b>	<b>0.0973</b>		<b>303.3330</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0192	0.0134	0.1563	5.0000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		50.1795	50.1795	1.4000e-003		50.2144
<b>Total</b>	<b>0.0192</b>	<b>0.0134</b>	<b>0.1563</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.1000e-004</b>	<b>0.0139</b>		<b>50.1795</b>	<b>50.1795</b>	<b>1.4000e-003</b>		<b>50.2144</b>

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**3.4 Site Restoration - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0481	1.6940	2.3625	3.1100e-003		0.1240	0.1240		0.1262	0.1262	0.0000	300.9001	300.9001	0.0973		303.3330
<b>Total</b>	<b>0.0481</b>	<b>1.6940</b>	<b>2.3625</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1240</b>	<b>0.1240</b>	<b>0.0000</b>	<b>0.1262</b>	<b>0.1262</b>	<b>0.0000</b>	<b>300.9001</b>	<b>300.9001</b>	<b>0.0973</b>		<b>303.3330</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0192	0.0134	0.1563	5.0000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		50.1795	50.1795	1.4000e-003		50.2144
<b>Total</b>	<b>0.0192</b>	<b>0.0134</b>	<b>0.1563</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.1000e-004</b>	<b>0.0139</b>		<b>50.1795</b>	<b>50.1795</b>	<b>1.4000e-003</b>		<b>50.2144</b>

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**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3575	22.0277	16.5155	0.0272		1.2118	1.2118		1.1315	1.1315		2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>2.3575</b>	<b>22.0277</b>	<b>16.5155</b>	<b>0.0272</b>		<b>1.2118</b>	<b>1.2118</b>		<b>1.1315</b>	<b>1.1315</b>		<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.1249	0.0869	1.0160	3.2700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		326.1664	326.1664	9.0800e-003		326.3934
<b>Total</b>	<b>0.1306</b>	<b>0.2825</b>	<b>1.0654</b>	<b>3.7700e-003</b>	<b>0.3444</b>	<b>2.6000e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4000e-003</b>	<b>0.0940</b>		<b>380.0127</b>	<b>380.0127</b>	<b>0.0130</b>		<b>380.3386</b>

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Tunnel Excavation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6072	13.2821	17.6827	0.0272		0.7525	0.7525		0.7547	0.7547	0.0000	2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>0.6072</b>	<b>13.2821</b>	<b>17.6827</b>	<b>0.0272</b>		<b>0.7525</b>	<b>0.7525</b>		<b>0.7547</b>	<b>0.7547</b>	<b>0.0000</b>	<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.1249	0.0869	1.0160	3.2700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		326.1664	326.1664	9.0800e-003		326.3934
<b>Total</b>	<b>0.1306</b>	<b>0.2825</b>	<b>1.0654</b>	<b>3.7700e-003</b>	<b>0.3444</b>	<b>2.6000e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4000e-003</b>	<b>0.0940</b>		<b>380.0127</b>	<b>380.0127</b>	<b>0.0130</b>		<b>380.3386</b>

**4.0 Operational Detail - Mobile**

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193



Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Unmitigated	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>		<b>8.1000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0684					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>4.3000e-004</b>

**7.0 Water Detail**

## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Summer

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**Landfill Gas Pipeline-Trenchless**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	NumDays	1.00	120.00
tblConstructionPhase	NumDays	1.00	120.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00



## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	21.00	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.1000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.51	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.05	46.05	0.00	0.00	46.91

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	3/2/2020	3/27/2020	5	20	
2	Portal Excavation	Site Preparation	3/30/2020	9/11/2020	5	120	
3	Site Restoration	Site Preparation	9/14/2020	2/26/2021	5	120	
4	Tunnel Excavation	Trenching	3/1/2021	10/5/2021	5	157	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Site Preparation at Portal Sites - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302		2,410.502 3	2,410.502 3	0.7796		2,429.992 4
<b>Total</b>	<b>1.6782</b>	<b>20.1828</b>	<b>11.5528</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.7937</b>	<b>0.7937</b>	<b>0.0000</b>	<b>0.7302</b>	<b>0.7302</b>		<b>2,410.502 3</b>	<b>2,410.502 3</b>	<b>0.7796</b>		<b>2,429.992 4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0330	0.3081	9.8000e-004	0.1022	6.9000e-004	0.1029	0.0271	6.4000e-004	0.0277		97.4472	97.4472	2.8300e-003		97.5180
<b>Total</b>	<b>0.0472</b>	<b>0.0330</b>	<b>0.3081</b>	<b>9.8000e-004</b>	<b>0.1022</b>	<b>6.9000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.4000e-004</b>	<b>0.0277</b>		<b>97.4472</b>	<b>97.4472</b>	<b>2.8300e-003</b>		<b>97.5180</b>

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**3.2 Site Preparation at Portal Sites - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5777	11.9870	13.9515	0.0249		0.5110	0.5110		0.5137	0.5137	0.0000	2,410.502 3	2,410.502 3	0.7796		2,429.992 4
<b>Total</b>	<b>0.5777</b>	<b>11.9870</b>	<b>13.9515</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5110</b>	<b>0.5110</b>	<b>0.0000</b>	<b>0.5137</b>	<b>0.5137</b>	<b>0.0000</b>	<b>2,410.502 3</b>	<b>2,410.502 3</b>	<b>0.7796</b>		<b>2,429.992 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0330	0.3081	9.8000e-004	0.1022	6.9000e-004	0.1029	0.0271	6.4000e-004	0.0277		97.4472	97.4472	2.8300e-003		97.5180
<b>Total</b>	<b>0.0472</b>	<b>0.0330</b>	<b>0.3081</b>	<b>9.8000e-004</b>	<b>0.1022</b>	<b>6.9000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.4000e-004</b>	<b>0.0277</b>		<b>97.4472</b>	<b>97.4472</b>	<b>2.8300e-003</b>		<b>97.5180</b>

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**3.3 Portal Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3158	0.0000	4.3158	2.3723	0.0000	2.3723			0.0000			0.0000
Off-Road	2.5068	23.4458	16.6677	0.0272		1.3301	1.3301		1.2430	1.2430		2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>2.5068</b>	<b>23.4458</b>	<b>16.6677</b>	<b>0.0272</b>	<b>4.3158</b>	<b>1.3301</b>	<b>5.6459</b>	<b>2.3723</b>	<b>1.2430</b>	<b>3.6153</b>		<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>



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**3.3 Portal Excavation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9421	0.0000	1.9421	1.0676	0.0000	1.0676			0.0000			0.0000
Off-Road	0.6016	13.2298	17.6778	0.0272		0.7472	0.7472		0.7498	0.7498	0.0000	2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>0.6016</b>	<b>13.2298</b>	<b>17.6778</b>	<b>0.0272</b>	<b>1.9421</b>	<b>0.7472</b>	<b>2.6893</b>	<b>1.0676</b>	<b>0.7498</b>	<b>1.8174</b>	<b>0.0000</b>	<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0426	1.6417	2.3577	3.1100e-003		0.1186	0.1186		0.1213	0.1213	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0426</b>	<b>1.6417</b>	<b>2.3577</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1186</b>	<b>0.1186</b>	<b>0.0000</b>	<b>0.1213</b>	<b>0.1213</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

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**3.4 Site Restoration - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
<b>Total</b>	<b>0.1873</b>	<b>1.8958</b>	<b>2.2602</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1118</b>	<b>0.1118</b>	<b>0.0000</b>	<b>0.1028</b>	<b>0.1028</b>		<b>300.9001</b>	<b>300.9001</b>	<b>0.0973</b>		<b>303.3330</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0150	0.1440	4.7000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		47.0852	47.0852	1.3100e-003		47.1178
<b>Total</b>	<b>0.0223</b>	<b>0.0150</b>	<b>0.1440</b>	<b>4.7000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.1000e-004</b>	<b>0.0139</b>		<b>47.0852</b>	<b>47.0852</b>	<b>1.3100e-003</b>		<b>47.1178</b>

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**3.4 Site Restoration - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0481	1.6940	2.3625	3.1100e-003		0.1240	0.1240		0.1262	0.1262	0.0000	300.9001	300.9001	0.0973		303.3330
<b>Total</b>	<b>0.0481</b>	<b>1.6940</b>	<b>2.3625</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1240</b>	<b>0.1240</b>	<b>0.0000</b>	<b>0.1262</b>	<b>0.1262</b>	<b>0.0000</b>	<b>300.9001</b>	<b>300.9001</b>	<b>0.0973</b>		<b>303.3330</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0150	0.1440	4.7000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		47.0852	47.0852	1.3100e-003		47.1178
<b>Total</b>	<b>0.0223</b>	<b>0.0150</b>	<b>0.1440</b>	<b>4.7000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.1000e-004</b>	<b>0.0139</b>		<b>47.0852</b>	<b>47.0852</b>	<b>1.3100e-003</b>		<b>47.1178</b>

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**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3575	22.0277	16.5155	0.0272		1.2118	1.2118		1.1315	1.1315		2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>2.3575</b>	<b>22.0277</b>	<b>16.5155</b>	<b>0.0272</b>		<b>1.2118</b>	<b>1.2118</b>		<b>1.1315</b>	<b>1.1315</b>		<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.1450	0.0975	0.9358	3.0700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		306.0535	306.0535	8.5000e-003		306.2660
<b>Total</b>	<b>0.1511</b>	<b>0.2923</b>	<b>0.9912</b>	<b>3.5600e-003</b>	<b>0.3444</b>	<b>2.6200e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4200e-003</b>	<b>0.0940</b>		<b>358.3932</b>	<b>358.3932</b>	<b>0.0127</b>		<b>358.7111</b>

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6072	13.2821	17.6827	0.0272		0.7525	0.7525		0.7547	0.7547	0.0000	2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>0.6072</b>	<b>13.2821</b>	<b>17.6827</b>	<b>0.0272</b>		<b>0.7525</b>	<b>0.7525</b>		<b>0.7547</b>	<b>0.7547</b>	<b>0.0000</b>	<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.1450	0.0975	0.9358	3.0700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		306.0535	306.0535	8.5000e-003		306.2660
<b>Total</b>	<b>0.1511</b>	<b>0.2923</b>	<b>0.9912</b>	<b>3.5600e-003</b>	<b>0.3444</b>	<b>2.6200e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4200e-003</b>	<b>0.0940</b>		<b>358.3932</b>	<b>358.3932</b>	<b>0.0127</b>		<b>358.7111</b>

**4.0 Operational Detail - Mobile**

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193



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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Unmitigated	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>		<b>8.1000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0684					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>4.3000e-004</b>

**7.0 Water Detail**

## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**MBC Improvements**  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - No water use.

Solid Waste - No solid waste generation.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.





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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	10/20/2021	4/6/2020
tblConstructionPhase	PhaseStartDate	4/24/2019	7/2/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction

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tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-24-2019	7-23-2019	0.3939	0.1475
2	7-24-2019	10-23-2019	0.5319	0.3283
3	10-24-2019	1-23-2020	0.5207	0.3284
4	1-24-2020	4-23-2020	0.4161	0.2769
		Highest	0.5319	0.3284

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	50.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	5/21/2019	5	15	
2	Grading	Grading	5/21/2019	7/1/2019	5	30	
3	Building Construction	Building Construction	7/2/2019	4/6/2020	5	200	
4	Paving	Paving	4/7/2020	4/15/2020	5	7	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Dumpers/Tenders	2	8.00	97	0.37
Demolition	Excavators	1	8.00	158	0.38
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0139	0.1377	0.0845	1.5000e-004		7.1100e-003	7.1100e-003		6.6800e-003	6.6800e-003	0.0000	13.2797	13.2797	3.2100e-003	0.0000	13.3599
<b>Total</b>	<b>0.0139</b>	<b>0.1377</b>	<b>0.0845</b>	<b>1.5000e-004</b>		<b>7.1100e-003</b>	<b>7.1100e-003</b>		<b>6.6800e-003</b>	<b>6.6800e-003</b>	<b>0.0000</b>	<b>13.2797</b>	<b>13.2797</b>	<b>3.2100e-003</b>	<b>0.0000</b>	<b>13.3599</b>



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**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.1900e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5614	0.5614	2.0000e-005	0.0000	0.5618
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.1900e-003</b>	<b>1.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>6.1000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.5614</b>	<b>0.5614</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5618</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4700e-003	0.0518	0.0875	1.5000e-004		3.6300e-003	3.6300e-003		3.5500e-003	3.5500e-003	0.0000	13.2796	13.2796	3.2100e-003	0.0000	13.3599
<b>Total</b>	<b>4.4700e-003</b>	<b>0.0518</b>	<b>0.0875</b>	<b>1.5000e-004</b>		<b>3.6300e-003</b>	<b>3.6300e-003</b>		<b>3.5500e-003</b>	<b>3.5500e-003</b>	<b>0.0000</b>	<b>13.2796</b>	<b>13.2796</b>	<b>3.2100e-003</b>	<b>0.0000</b>	<b>13.3599</b>

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**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.1900e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5614	0.5614	2.0000e-005	0.0000	0.5618
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.1900e-003</b>	<b>1.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>6.1000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.5614</b>	<b>0.5614</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5618</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0113	0.0000	0.0113	6.2100e-003	0.0000	6.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.1024	0.1122	1.9000e-004		4.7300e-003	4.7300e-003		4.4200e-003	4.4200e-003	0.0000	16.5770	16.5770	4.7000e-003	0.0000	16.6945
<b>Total</b>	<b>0.0113</b>	<b>0.1024</b>	<b>0.1122</b>	<b>1.9000e-004</b>	<b>0.0113</b>	<b>4.7300e-003</b>	<b>0.0160</b>	<b>6.2100e-003</b>	<b>4.4200e-003</b>	<b>0.0106</b>	<b>0.0000</b>	<b>16.5770</b>	<b>16.5770</b>	<b>4.7000e-003</b>	<b>0.0000</b>	<b>16.6945</b>

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**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.5000e-004	4.3900e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1227	1.1227	4.0000e-005	0.0000	1.1237
<b>Total</b>	<b>5.9000e-004</b>	<b>4.5000e-004</b>	<b>4.3900e-003</b>	<b>1.0000e-005</b>	<b>1.2000e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.1227</b>	<b>1.1227</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.1237</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0800e-003	0.0000	5.0800e-003	2.7900e-003	0.0000	2.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113		0.1122	1.9000e-004		4.7300e-003	4.7300e-003		4.4200e-003	4.4200e-003	0.0000	16.5770	16.5770	4.7000e-003	0.0000	16.6945
<b>Total</b>	<b>0.0113</b>		<b>0.1122</b>	<b>1.9000e-004</b>	<b>5.0800e-003</b>	<b>4.7300e-003</b>	<b>9.8100e-003</b>	<b>2.7900e-003</b>	<b>4.4200e-003</b>	<b>7.2100e-003</b>	<b>0.0000</b>	<b>16.5770</b>	<b>16.5770</b>	<b>4.7000e-003</b>	<b>0.0000</b>	<b>16.6945</b>

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**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.5000e-004	4.3900e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1227	1.1227	4.0000e-005	0.0000	1.1237
<b>Total</b>	<b>5.9000e-004</b>	<b>4.5000e-004</b>	<b>4.3900e-003</b>	<b>1.0000e-005</b>	<b>1.2000e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.1227</b>	<b>1.1227</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.1237</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1082	0.9282	0.6873	1.2300e-003		0.0500	0.0500		0.0478	0.0478	0.0000	104.5673	104.5673	0.0214	0.0000	105.1015
<b>Total</b>	<b>0.1082</b>	<b>0.9282</b>	<b>0.6873</b>	<b>1.2300e-003</b>		<b>0.0500</b>	<b>0.0500</b>		<b>0.0478</b>	<b>0.0478</b>	<b>0.0000</b>	<b>104.5673</b>	<b>104.5673</b>	<b>0.0214</b>	<b>0.0000</b>	<b>105.1015</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-004	0.0164	4.4200e-003	4.0000e-005	8.7000e-004	1.1000e-004	9.8000e-004	2.5000e-004	1.1000e-004	3.6000e-004	0.0000	3.4804	3.4804	2.8000e-004	0.0000	3.4874
Worker	4.1300e-003	3.1700e-003	0.0307	9.0000e-005	8.4000e-003	6.0000e-005	8.4700e-003	2.2300e-003	6.0000e-005	2.2900e-003	0.0000	7.8442	7.8442	2.5000e-004	0.0000	7.8506
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0196</b>	<b>0.0351</b>	<b>1.3000e-004</b>	<b>9.2700e-003</b>	<b>1.7000e-004</b>	<b>9.4500e-003</b>	<b>2.4800e-003</b>	<b>1.7000e-004</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>11.3246</b>	<b>11.3246</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>11.3379</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0298	0.6006	0.7184	1.2300e-003		0.0353	0.0353		0.0353	0.0353	0.0000	104.5671	104.5671	0.0214	0.0000	105.1013
<b>Total</b>	<b>0.0298</b>	<b>0.6006</b>	<b>0.7184</b>	<b>1.2300e-003</b>		<b>0.0353</b>	<b>0.0353</b>		<b>0.0353</b>	<b>0.0353</b>	<b>0.0000</b>	<b>104.5671</b>	<b>104.5671</b>	<b>0.0214</b>	<b>0.0000</b>	<b>105.1013</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-004	0.0164	4.4200e-003	4.0000e-005	8.7000e-004	1.1000e-004	9.8000e-004	2.5000e-004	1.1000e-004	3.6000e-004	0.0000	3.4804	3.4804	2.8000e-004	0.0000	3.4874
Worker	4.1300e-003	3.1700e-003	0.0307	9.0000e-005	8.4000e-003	6.0000e-005	8.4700e-003	2.2300e-003	6.0000e-005	2.2900e-003	0.0000	7.8442	7.8442	2.5000e-004	0.0000	7.8506
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0196</b>	<b>0.0351</b>	<b>1.3000e-004</b>	<b>9.2700e-003</b>	<b>1.7000e-004</b>	<b>9.4500e-003</b>	<b>2.4800e-003</b>	<b>1.7000e-004</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>11.3246</b>	<b>11.3246</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>11.3379</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0513	0.4473	0.3530	6.5000e-004		0.0229	0.0229		0.0219	0.0219	0.0000	54.4767	54.4767	0.0110	0.0000	54.7515
<b>Total</b>	<b>0.0513</b>	<b>0.4473</b>	<b>0.3530</b>	<b>6.5000e-004</b>		<b>0.0229</b>	<b>0.0229</b>		<b>0.0219</b>	<b>0.0219</b>	<b>0.0000</b>	<b>54.4767</b>	<b>54.4767</b>	<b>0.0110</b>	<b>0.0000</b>	<b>54.7515</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	7.8600e-003	2.0900e-003	2.0000e-005	4.6000e-004	4.0000e-005	5.0000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.8206	1.8206	1.4000e-004	0.0000	1.8241
Worker	2.0300e-003	1.5100e-003	0.0148	4.0000e-005	4.4300e-003	3.0000e-005	4.4600e-003	1.1800e-003	3.0000e-005	1.2100e-003	0.0000	4.0013	4.0013	1.2000e-004	0.0000	4.0043
<b>Total</b>	<b>2.2900e-003</b>	<b>9.3700e-003</b>	<b>0.0148</b>	<b>6.0000e-005</b>	<b>4.8900e-003</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.3100e-003</b>	<b>7.0000e-005</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>5.8220</b>	<b>5.8220</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>5.8285</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.3164	0.3784	6.5000e-004		0.0186	0.0186		0.0186	0.0186	0.0000	54.4766	54.4766	0.0110	0.0000	54.7514
<b>Total</b>	<b>0.0157</b>	<b>0.3164</b>	<b>0.3784</b>	<b>6.5000e-004</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>	<b>0.0000</b>	<b>54.4766</b>	<b>54.4766</b>	<b>0.0110</b>	<b>0.0000</b>	<b>54.7514</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	7.8600e-003	2.0900e-003	2.0000e-005	4.6000e-004	4.0000e-005	5.0000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.8206	1.8206	1.4000e-004	0.0000	1.8241
Worker	2.0300e-003	1.5100e-003	0.0148	4.0000e-005	4.4300e-003	3.0000e-005	4.4600e-003	1.1800e-003	3.0000e-005	1.2100e-003	0.0000	4.0013	4.0013	1.2000e-004	0.0000	4.0043
<b>Total</b>	<b>2.2900e-003</b>	<b>9.3700e-003</b>	<b>0.0149</b>	<b>6.0000e-005</b>	<b>4.8900e-003</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.3100e-003</b>	<b>7.0000e-005</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>5.8220</b>	<b>5.8220</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>5.8285</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3600e-003	0.0245	0.0255	4.0000e-005		1.3100e-003	1.3100e-003		1.2100e-003	1.2100e-003	0.0000	3.4879	3.4879	1.1300e-003	0.0000	3.5161
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.3600e-003</b>	<b>0.0245</b>	<b>0.0255</b>	<b>4.0000e-005</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>3.4879</b>	<b>3.4879</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.5161</b>



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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.7000e-004	1.6900e-003	1.0000e-005	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4567	0.4567	1.0000e-005	0.0000	0.4570
<b>Total</b>	<b>2.3000e-004</b>	<b>1.7000e-004</b>	<b>1.6900e-003</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4567</b>	<b>0.4567</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4570</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3500e-003	0.0130	0.0282	4.0000e-005		1.1100e-003	1.1100e-003		1.0800e-003	1.0800e-003	0.0000	3.4879	3.4879	1.1300e-003	0.0000	3.5161
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.3500e-003</b>	<b>0.0130</b>	<b>0.0282</b>	<b>4.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.0800e-003</b>	<b>1.0800e-003</b>	<b>0.0000</b>	<b>3.4879</b>	<b>3.4879</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.5161</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.7000e-004	1.6900e-003	1.0000e-005	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4567	0.4567	1.0000e-005	0.0000	0.4570
<b>Total</b>	<b>2.3000e-004</b>	<b>1.7000e-004</b>	<b>1.6900e-003</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4567</b>	<b>0.4567</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4570</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## MBC Improvements - San Diego County APCD Air District, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



MBC Improvements - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

MBC Improvements - San Diego County APCD Air District, Annual

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MBC Improvements - San Diego County APCD Air District, Summer

**MBC Improvements**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

MBC Improvements - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - No water use.

Solid Waste - No solid waste generation.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



MBC Improvements - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	10/20/2021	4/6/2020
tblConstructionPhase	PhaseStartDate	4/24/2019	7/2/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction



## MBC Improvements - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

## 2.0 Emissions Summary

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MBC Improvements - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

MBC Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	100.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	47.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	5/21/2019	5	15	
2	Grading	Grading	5/21/2019	7/1/2019	5	30	
3	Building Construction	Building Construction	7/2/2019	4/6/2020	5	200	
4	Paving	Paving	4/7/2020	4/15/2020	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

MBC Improvements - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Dumpers/Tenders	2	8.00	97	0.37
Demolition	Excavators	1	8.00	158	0.38
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

MBC Improvements - San Diego County APCD Air District, Summer

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8586	18.3582	11.2658	0.0200		0.9482	0.9482		0.8907	0.8907		1,951.775 4	1,951.775 4	0.4717		1,963.568 4
<b>Total</b>	<b>1.8586</b>	<b>18.3582</b>	<b>11.2658</b>	<b>0.0200</b>		<b>0.9482</b>	<b>0.9482</b>		<b>0.8907</b>	<b>0.8907</b>		<b>1,951.775 4</b>	<b>1,951.775 4</b>	<b>0.4717</b>		<b>1,963.568 4</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5963	6.9002	11.6688	0.0200		0.4836	0.4836		0.4732	0.4732	0.0000	1,951.7754	1,951.7754	0.4717		1,963.5684
<b>Total</b>	<b>0.5963</b>	<b>6.9002</b>	<b>11.6688</b>	<b>0.0200</b>		<b>0.4836</b>	<b>0.4836</b>		<b>0.4732</b>	<b>0.4732</b>	<b>0.0000</b>	<b>1,951.7754</b>	<b>1,951.7754</b>	<b>0.4717</b>		<b>1,963.5684</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7514	6.8242	7.4816	0.0129		0.3153	0.3153		0.2945	0.2945		1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>	<b>6.8242</b>	<b>7.4816</b>	<b>0.0129</b>	<b>0.7528</b>	<b>0.3153</b>	<b>1.0681</b>	<b>0.4138</b>	<b>0.2945</b>	<b>0.7083</b>		<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>



MBC Improvements - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7514		7.4816	0.0129		0.3153	0.3153		0.2945	0.2945	0.0000	1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>		<b>7.4816</b>	<b>0.0129</b>	<b>0.3387</b>	<b>0.3153</b>	<b>0.6541</b>	<b>0.1862</b>	<b>0.2945</b>	<b>0.4807</b>	<b>0.0000</b>	<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6511	14.1706	10.4925	0.0187		0.7626	0.7626		0.7298	0.7298		1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>1.6511</b>	<b>14.1706</b>	<b>10.4925</b>	<b>0.0187</b>		<b>0.7626</b>	<b>0.7626</b>		<b>0.7298</b>	<b>0.7298</b>		<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4869	12.9652	10.2331	0.0187		0.6638	0.6638		0.6354	0.6354		1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>1.4869</b>	<b>12.9652</b>	<b>10.2331</b>	<b>0.0187</b>		<b>0.6638</b>	<b>0.6638</b>		<b>0.6354</b>	<b>0.6354</b>		<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6755	7.0036	7.2915	0.0113		0.3749	0.3749		0.3449	0.3449		1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6755</b>	<b>7.0036</b>	<b>7.2915</b>	<b>0.0113</b>		<b>0.3749</b>	<b>0.3749</b>		<b>0.3449</b>	<b>0.3449</b>		<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3845	3.7032	8.0467	0.0113		0.3164	0.3164		0.3080	0.3080	0.0000	1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3845</b>	<b>3.7032</b>	<b>8.0467</b>	<b>0.0113</b>		<b>0.3164</b>	<b>0.3164</b>		<b>0.3080</b>	<b>0.3080</b>	<b>0.0000</b>	<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



MBC Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

MBC Improvements - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

MBC Improvements - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

MBC Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

MBC Improvements - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>1.2000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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MBC Improvements - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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MBC Improvements - San Diego County APCD Air District, Winter

**MBC Improvements**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

MBC Improvements - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - No water use.

Solid Waste - No solid waste generation.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.





MBC Improvements - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	10/20/2021	4/6/2020
tblConstructionPhase	PhaseStartDate	4/24/2019	7/2/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction

## MBC Improvements - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

## 2.0 Emissions Summary

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MBC Improvements - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

## MBC Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	100.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	47.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	5/21/2019	5	15	
2	Grading	Grading	5/21/2019	7/1/2019	5	30	
3	Building Construction	Building Construction	7/2/2019	4/6/2020	5	200	
4	Paving	Paving	4/7/2020	4/15/2020	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

MBC Improvements - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Dumpers/Tenders	2	8.00	97	0.37
Demolition	Excavators	1	8.00	158	0.38
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

MBC Improvements - San Diego County APCD Air District, Winter

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8586	18.3582	11.2658	0.0200		0.9482	0.9482		0.8907	0.8907		1,951.775 4	1,951.775 4	0.4717		1,963.568 4
<b>Total</b>	<b>1.8586</b>	<b>18.3582</b>	<b>11.2658</b>	<b>0.0200</b>		<b>0.9482</b>	<b>0.9482</b>		<b>0.8907</b>	<b>0.8907</b>		<b>1,951.775 4</b>	<b>1,951.775 4</b>	<b>0.4717</b>		<b>1,963.568 4</b>



MBC Improvements - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5963	6.9002	11.6688	0.0200		0.4836	0.4836		0.4732	0.4732	0.0000	1,951.7754	1,951.7754	0.4717		1,963.5684
<b>Total</b>	<b>0.5963</b>	<b>6.9002</b>	<b>11.6688</b>	<b>0.0200</b>		<b>0.4836</b>	<b>0.4836</b>		<b>0.4732</b>	<b>0.4732</b>	<b>0.0000</b>	<b>1,951.7754</b>	<b>1,951.7754</b>	<b>0.4717</b>		<b>1,963.5684</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7514	6.8242	7.4816	0.0129		0.3153	0.3153		0.2945	0.2945		1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>	<b>6.8242</b>	<b>7.4816</b>	<b>0.0129</b>	<b>0.7528</b>	<b>0.3153</b>	<b>1.0681</b>	<b>0.4138</b>	<b>0.2945</b>	<b>0.7083</b>		<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7514		7.4816	0.0129		0.3153	0.3153		0.2945	0.2945	0.0000	1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>		<b>7.4816</b>	<b>0.0129</b>	<b>0.3387</b>	<b>0.3153</b>	<b>0.6541</b>	<b>0.1862</b>	<b>0.2945</b>	<b>0.4807</b>	<b>0.0000</b>	<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6511	14.1706	10.4925	0.0187		0.7626	0.7626		0.7298	0.7298		1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>1.6511</b>	<b>14.1706</b>	<b>10.4925</b>	<b>0.0187</b>		<b>0.7626</b>	<b>0.7626</b>		<b>0.7298</b>	<b>0.7298</b>		<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4869	12.9652	10.2331	0.0187		0.6638	0.6638		0.6354	0.6354		1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>1.4869</b>	<b>12.9652</b>	<b>10.2331</b>	<b>0.0187</b>		<b>0.6638</b>	<b>0.6638</b>		<b>0.6354</b>	<b>0.6354</b>		<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6755	7.0036	7.2915	0.0113		0.3749	0.3749		0.3449	0.3449		1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6755</b>	<b>7.0036</b>	<b>7.2915</b>	<b>0.0113</b>		<b>0.3749</b>	<b>0.3749</b>		<b>0.3449</b>	<b>0.3449</b>		<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>



MBC Improvements - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3845	3.7032	8.0467	0.0113		0.3164	0.3164		0.3080	0.3080	0.0000	1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3845</b>	<b>3.7032</b>	<b>8.0467</b>	<b>0.0113</b>		<b>0.3164</b>	<b>0.3164</b>		<b>0.3080</b>	<b>0.3080</b>	<b>0.0000</b>	<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

MBC Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

MBC Improvements - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

MBC Improvements - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

MBC Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

MBC Improvements - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>1.2000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**Miramar Water Treatment Plant Improvements**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	2

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

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Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - There are no coatings for this project.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

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Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00

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tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	2.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	1.24	1.16
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	50.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	41,600.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-24-2020	9-30-2020	0.4176	0.2781
		Highest	0.4176	0.2781

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2355	0.0000	0.2355	0.0139	0.0000	0.5834
Water						0.0000	0.0000		0.0000	0.0000	0.0132	0.1770	0.1902	1.3600e-003	3.0000e-005	0.2343
<b>Total</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.2487</b>	<b>0.1770</b>	<b>0.4257</b>	<b>0.0153</b>	<b>3.0000e-005</b>	<b>0.8177</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.6100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2355	0.0000	0.2355	0.0139	0.0000	0.5834
Water						0.0000	0.0000		0.0000	0.0000	0.0132	0.1770	0.1902	1.3600e-003	3.0000e-005	0.2343
<b>Total</b>	<b>3.6100e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.2487</b>	<b>0.1770</b>	<b>0.4257</b>	<b>0.0153</b>	<b>3.0000e-005</b>	<b>0.8177</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>7.67</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/24/2020	8/6/2020	5	10	
2	Building Construction	Building Construction	8/7/2020	10/29/2020	5	60	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	50.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



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Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5800e-003	0.0942	0.0619	1.0000e-004		5.1000e-003	5.1000e-003		4.7700e-003	4.7700e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>9.5800e-003</b>	<b>0.0942</b>	<b>0.0619</b>	<b>1.0000e-004</b>		<b>5.1000e-003</b>	<b>5.1000e-003</b>		<b>4.7700e-003</b>	<b>4.7700e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

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**3.2 Demolition - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3624</b>	<b>0.3624</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3627</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4300e-003	0.0518	0.0654	1.0000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>2.4300e-003</b>	<b>0.0518</b>	<b>0.0654</b>	<b>1.0000e-004</b>		<b>2.9800e-003</b>	<b>2.9800e-003</b>		<b>2.9800e-003</b>	<b>2.9800e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

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**3.2 Demolition - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3624</b>	<b>0.3624</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3627</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0419	0.3927	0.3099	5.2000e-004		0.0206	0.0206		0.0191	0.0191	0.0000	44.4090	44.4090	0.0134	0.0000	44.7433
<b>Total</b>	<b>0.0419</b>	<b>0.3927</b>	<b>0.3099</b>	<b>5.2000e-004</b>		<b>0.0206</b>	<b>0.0206</b>		<b>0.0191</b>	<b>0.0191</b>	<b>0.0000</b>	<b>44.4090</b>	<b>44.4090</b>	<b>0.0134</b>	<b>0.0000</b>	<b>44.7433</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1400e-003	0.0342	9.0900e-003	8.0000e-005	1.9900e-003	1.7000e-004	2.1600e-003	5.7000e-004	1.6000e-004	7.3000e-004	0.0000	7.9158	7.9158	6.1000e-004	0.0000	7.9310
Worker	5.5300e-003	4.0900e-003	0.0401	1.2000e-004	0.0120	9.0000e-005	0.0121	3.2000e-003	8.0000e-005	3.2800e-003	0.0000	10.8731	10.8731	3.3000e-004	0.0000	10.8813
<b>Total</b>	<b>6.6700e-003</b>	<b>0.0383</b>	<b>0.0492</b>	<b>2.0000e-004</b>	<b>0.0140</b>	<b>2.6000e-004</b>	<b>0.0143</b>	<b>3.7700e-003</b>	<b>2.4000e-004</b>	<b>4.0100e-003</b>	<b>0.0000</b>	<b>18.7890</b>	<b>18.7890</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>18.8123</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0140	0.2832	0.3399	5.2000e-004		0.0167	0.0167		0.0167	0.0167	0.0000	44.4090	44.4090	0.0134	0.0000	44.7433
<b>Total</b>	<b>0.0140</b>	<b>0.2832</b>	<b>0.3399</b>	<b>5.2000e-004</b>		<b>0.0167</b>	<b>0.0167</b>		<b>0.0167</b>	<b>0.0167</b>	<b>0.0000</b>	<b>44.4090</b>	<b>44.4090</b>	<b>0.0134</b>	<b>0.0000</b>	<b>44.7433</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1400e-003	0.0342	9.0900e-003	8.0000e-005	1.9900e-003	1.7000e-004	2.1600e-003	5.7000e-004	1.6000e-004	7.3000e-004	0.0000	7.9158	7.9158	6.1000e-004	0.0000	7.9310
Worker	5.5300e-003	4.0900e-003	0.0401	1.2000e-004	0.0120	9.0000e-005	0.0121	3.2000e-003	8.0000e-005	3.2800e-003	0.0000	10.8731	10.8731	3.3000e-004	0.0000	10.8813
<b>Total</b>	<b>6.6700e-003</b>	<b>0.0383</b>	<b>0.0492</b>	<b>2.0000e-004</b>	<b>0.0140</b>	<b>2.6000e-004</b>	<b>0.0143</b>	<b>3.7700e-003</b>	<b>2.4000e-004</b>	<b>4.0100e-003</b>	<b>0.0000</b>	<b>18.7890</b>	<b>18.7890</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>18.8123</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.6100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	3.9100e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
<b>Total</b>	<b>3.6100e-003</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1902	1.3600e-003	3.0000e-005	0.2343
Unmitigated	0.1902	1.3600e-003	3.0000e-005	0.2343

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0416 / 0	0.1902	1.3600e-003	3.0000e-005	0.2343
<b>Total</b>		<b>0.1902</b>	<b>1.3600e-003</b>	<b>3.0000e-005</b>	<b>0.2343</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0416 / 0	0.1902	1.3600e-003	3.0000e-005	0.2343
<b>Total</b>		<b>0.1902</b>	<b>1.3600e-003</b>	<b>3.0000e-005</b>	<b>0.2343</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2355	0.0139	0.0000	0.5834
Unmitigated	0.2355	0.0139	0.0000	0.5834

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1.16	0.2355	0.0139	0.0000	0.5834
<b>Total</b>		<b>0.2355</b>	<b>0.0139</b>	<b>0.0000</b>	<b>0.5834</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1.16	0.2355	0.0139	0.0000	0.5834
<b>Total</b>		<b>0.2355</b>	<b>0.0139</b>	<b>0.0000</b>	<b>0.5834</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**Miramar Water Treatment Plant Improvements**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	2

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.



## Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - There are no coatings for this project.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00

## Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	2.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	1.24	1.16
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	50.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	41,600.00

## 2.0 Emissions Summary

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Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0214	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0214</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0198	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0198</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.52	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	47.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/24/2020	8/6/2020	5	10	
2	Building Construction	Building Construction	8/7/2020	10/29/2020	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	50.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>		<b>1.0194</b>	<b>1.0194</b>		<b>0.9537</b>	<b>0.9537</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0367</b>	<b>0.0247</b>	<b>0.2835</b>	<b>8.5000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>84.2747</b>	<b>84.2747</b>	<b>2.5200e-003</b>		<b>84.3376</b>



Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>		<b>0.5966</b>	<b>0.5966</b>		<b>0.5966</b>	<b>0.5966</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0367</b>	<b>0.0247</b>	<b>0.2835</b>	<b>8.5000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>84.2747</b>	<b>84.2747</b>	<b>2.5200e-003</b>		<b>84.3376</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3967	13.0903	10.3300	0.0173		0.6859	0.6859		0.6380	0.6380		1,631.7530	1,631.7530	0.4913		1,644.0357
<b>Total</b>	<b>1.3967</b>	<b>13.0903</b>	<b>10.3300</b>	<b>0.0173</b>		<b>0.6859</b>	<b>0.6859</b>		<b>0.6380</b>	<b>0.6380</b>		<b>1,631.7530</b>	<b>1,631.7530</b>	<b>0.4913</b>		<b>1,644.0357</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0374	1.1276	0.2873	2.7400e-003	0.0677	5.5200e-003	0.0732	0.0195	5.2800e-003	0.0248		294.0401	294.0401	0.0217		294.5824
Worker	0.1835	0.1236	1.4173	4.2300e-003	0.4107	2.8800e-003	0.4136	0.1090	2.6600e-003	0.1116		421.3735	421.3735	0.0126		421.6881
<b>Total</b>	<b>0.2209</b>	<b>1.2512</b>	<b>1.7046</b>	<b>6.9700e-003</b>	<b>0.4784</b>	<b>8.4000e-003</b>	<b>0.4868</b>	<b>0.1284</b>	<b>7.9400e-003</b>	<b>0.1364</b>		<b>715.4136</b>	<b>715.4136</b>	<b>0.0343</b>		<b>716.2704</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4670	9.4389	11.3307	0.0173		0.5571	0.5571		0.5571	0.5571	0.0000	1,631.7530	1,631.7530	0.4913		1,644.0357
<b>Total</b>	<b>0.4670</b>	<b>9.4389</b>	<b>11.3307</b>	<b>0.0173</b>		<b>0.5571</b>	<b>0.5571</b>		<b>0.5571</b>	<b>0.5571</b>	<b>0.0000</b>	<b>1,631.7530</b>	<b>1,631.7530</b>	<b>0.4913</b>		<b>1,644.0357</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0374	1.1276	0.2873	2.7400e-003	0.0677	5.5200e-003	0.0732	0.0195	5.2800e-003	0.0248		294.0401	294.0401	0.0217		294.5824
Worker	0.1835	0.1236	1.4173	4.2300e-003	0.4107	2.8800e-003	0.4136	0.1090	2.6600e-003	0.1116		421.3735	421.3735	0.0126		421.6881
<b>Total</b>	<b>0.2209</b>	<b>1.2512</b>	<b>1.7046</b>	<b>6.9700e-003</b>	<b>0.4784</b>	<b>8.4000e-003</b>	<b>0.4868</b>	<b>0.1284</b>	<b>7.9400e-003</b>	<b>0.1364</b>		<b>715.4136</b>	<b>715.4136</b>	<b>0.0343</b>		<b>716.2704</b>

**4.0 Operational Detail - Mobile**

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Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0198	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Unmitigated	0.0214	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>0.0214</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
<b>Total</b>	<b>0.0198</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>1.2000e-004</b>

**7.0 Water Detail**



## Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**Miramar Water Treatment Plant Improvements**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	2

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - There are no coatings for this project.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	500	0
tblAreaCoating	Area_Nonresidential_Interior	1500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00

## Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	2.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	1.24	1.16
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	50.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	41,600.00

## 2.0 Emissions Summary

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Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0214	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0214</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0198	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0198</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.52	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	47.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/24/2020	8/6/2020	5	10	
2	Building Construction	Building Construction	8/7/2020	10/29/2020	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment



Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	1	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	50.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>		<b>1.0194</b>	<b>1.0194</b>		<b>0.9537</b>	<b>0.9537</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0416</b>	<b>0.0278</b>	<b>0.2673</b>	<b>7.9000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>79.1132</b>	<b>79.1132</b>	<b>2.3800e-003</b>		<b>79.1727</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>		<b>0.5966</b>	<b>0.5966</b>		<b>0.5966</b>	<b>0.5966</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0416</b>	<b>0.0278</b>	<b>0.2673</b>	<b>7.9000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>79.1132</b>	<b>79.1132</b>	<b>2.3800e-003</b>		<b>79.1727</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3967	13.0903	10.3300	0.0173		0.6859	0.6859		0.6380	0.6380		1,631.7530	1,631.7530	0.4913		1,644.0357
<b>Total</b>	<b>1.3967</b>	<b>13.0903</b>	<b>10.3300</b>	<b>0.0173</b>		<b>0.6859</b>	<b>0.6859</b>		<b>0.6380</b>	<b>0.6380</b>		<b>1,631.7530</b>	<b>1,631.7530</b>	<b>0.4913</b>		<b>1,644.0357</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0391	1.1267	0.3188	2.6700e-003	0.0677	5.6200e-003	0.0733	0.0195	5.3800e-003	0.0249		286.4622	286.4622	0.0231		287.0385
Worker	0.2078	0.1388	1.3362	3.9700e-003	0.4107	2.8800e-003	0.4136	0.1090	2.6600e-003	0.1116		395.5660	395.5660	0.0119		395.8637
<b>Total</b>	<b>0.2469</b>	<b>1.2655</b>	<b>1.6550</b>	<b>6.6400e-003</b>	<b>0.4784</b>	<b>8.5000e-003</b>	<b>0.4869</b>	<b>0.1284</b>	<b>8.0400e-003</b>	<b>0.1365</b>		<b>682.0282</b>	<b>682.0282</b>	<b>0.0350</b>		<b>682.9022</b>

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4670	9.4389	11.3307	0.0173		0.5571	0.5571		0.5571	0.5571	0.0000	1,631.7530	1,631.7530	0.4913		1,644.0357
<b>Total</b>	<b>0.4670</b>	<b>9.4389</b>	<b>11.3307</b>	<b>0.0173</b>		<b>0.5571</b>	<b>0.5571</b>		<b>0.5571</b>	<b>0.5571</b>	<b>0.0000</b>	<b>1,631.7530</b>	<b>1,631.7530</b>	<b>0.4913</b>		<b>1,644.0357</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0391	1.1267	0.3188	2.6700e-003	0.0677	5.6200e-003	0.0733	0.0195	5.3800e-003	0.0249		286.4622	286.4622	0.0231		287.0385
Worker	0.2078	0.1388	1.3362	3.9700e-003	0.4107	2.8800e-003	0.4136	0.1090	2.6600e-003	0.1116		395.5660	395.5660	0.0119		395.8637
<b>Total</b>	<b>0.2469</b>	<b>1.2655</b>	<b>1.6550</b>	<b>6.6400e-003</b>	<b>0.4784</b>	<b>8.5000e-003</b>	<b>0.4869</b>	<b>0.1284</b>	<b>8.0400e-003</b>	<b>0.1365</b>		<b>682.0282</b>	<b>682.0282</b>	<b>0.0350</b>		<b>682.9022</b>

**4.0 Operational Detail - Mobile**

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Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0198	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Unmitigated	0.0214	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0214					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>0.0214</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
<b>Total</b>	<b>0.0198</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>1.2000e-004</b>

**7.0 Water Detail**

Miramar Water Treatment Plant Improvements - San Diego County APCD Air District, Winter

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	637.91	1000sqft	14.64	637,908.36	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

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Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

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Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	318954	0
tblAreaCoating	Area_Nonresidential_Interior	956862	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	200.00

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tblConstructionPhase	NumDays	20.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	637,910.00	637,908.36
tblLandUse	LandUseSquareFeet	637,910.00	637,908.36
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	791.01	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,154.00
tblTripsAndVMT	VendorTripNumber	105.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00

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tblTripsAndVMT	WorkerTripNumber	268.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	147,516,687.50	0.00

## 2.0 Emissions Summary

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4862	5.3617	3.1760	6.8800e-003	0.0888	0.2631	0.3519	0.0221	0.2421	0.2643	0.0000	636.1861	636.1861	0.1484	0.0000	639.8970
2020	0.2215	2.2988	1.6895	3.1900e-003	0.0741	0.1175	0.1916	0.0172	0.1081	0.1253	0.0000	281.5465	281.5465	0.0820	0.0000	283.5962
2021	0.0947	0.9215	1.0816	1.7500e-003	0.0142	0.0482	0.0624	3.7600e-003	0.0444	0.0481	0.0000	154.4199	154.4199	0.0463	0.0000	155.5779
<b>Maximum</b>	<b>0.4862</b>	<b>5.3617</b>	<b>3.1760</b>	<b>6.8800e-003</b>	<b>0.0888</b>	<b>0.2631</b>	<b>0.3519</b>	<b>0.0221</b>	<b>0.2421</b>	<b>0.2643</b>	<b>0.0000</b>	<b>636.1861</b>	<b>636.1861</b>	<b>0.1484</b>	<b>0.0000</b>	<b>639.8970</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1481	3.1085	3.3496	6.8800e-003	0.0816	0.1299	0.2115	0.0212	0.1298	0.1510	0.0000	636.1856	636.1856	0.1484	0.0000	639.8965
2020	0.0817	1.4871	1.9706	3.1900e-003	0.0669	0.0778	0.1446	0.0163	0.0777	0.0940	0.0000	281.5462	281.5462	0.0820	0.0000	283.5959
2021	0.0454	0.8062	1.2692	1.7500e-003	0.0142	0.0434	0.0575	3.7600e-003	0.0434	0.0471	0.0000	154.4198	154.4198	0.0463	0.0000	155.5778
<b>Maximum</b>	<b>0.1481</b>	<b>3.1085</b>	<b>3.3496</b>	<b>6.8800e-003</b>	<b>0.0816</b>	<b>0.1299</b>	<b>0.2115</b>	<b>0.0212</b>	<b>0.1298</b>	<b>0.1510</b>	<b>0.0000</b>	<b>636.1856</b>	<b>636.1856</b>	<b>0.1484</b>	<b>0.0000</b>	<b>639.8965</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	65.69	37.06	-10.80	0.00	8.18	41.44	31.72	4.22	36.42	33.25	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-2-2019	7-1-2019	1.9337	1.0744
2	7-2-2019	10-1-2019	1.9550	1.0862
3	10-2-2019	1-1-2020	1.9575	1.0900
4	1-2-2020	4-1-2020	0.7007	0.4134
5	4-2-2020	7-1-2020	0.6359	0.3752
6	7-2-2020	10-1-2020	0.6429	0.3793
7	10-2-2020	1-1-2021	0.5273	0.3931
8	1-2-2021	4-1-2021	0.4604	0.3859
9	4-2-2021	7-1-2021	0.4649	0.3896
10	7-2-2021	9-30-2021	0.0920	0.0771
		Highest	1.9575	1.0900

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4919	5.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0114	0.0114	3.0000e-005	0.0000	0.0122
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.4919</b>	<b>5.0000e-005</b>	<b>5.8800e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0114</b>	<b>0.0114</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0122</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.4916	3.0000e-005	3.4100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1400e-003	6.1400e-003	1.0000e-005	0.0000	6.4600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.4916</b>	<b>3.0000e-005</b>	<b>3.4100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>6.1400e-003</b>	<b>6.1400e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>6.4600e-003</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.01</b>	<b>40.00</b>	<b>42.01</b>	<b>0.00</b>	<b>0.00</b>	<b>50.00</b>	<b>50.00</b>	<b>0.00</b>	<b>50.00</b>	<b>50.00</b>	<b>0.00</b>	<b>46.14</b>	<b>46.14</b>	<b>66.67</b>	<b>0.00</b>	<b>46.88</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	4/2/2019	1/6/2020	5	200	
2	Building Construction	Building Construction	1/7/2020	10/12/2020	5	200	Pipeline installation and backfill.
3	Paving	Paving	10/13/2020	7/19/2021	5	200	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	5,154.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	16.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0132	0.0000	0.0132	1.6600e-003	0.0000	1.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4499	4.5763	2.8992	4.5600e-003		0.2600	0.2600		0.2392	0.2392	0.0000	409.9353	409.9353	0.1297	0.0000	413.1778
<b>Total</b>	<b>0.4499</b>	<b>4.5763</b>	<b>2.8992</b>	<b>4.5600e-003</b>	<b>0.0132</b>	<b>0.2600</b>	<b>0.2731</b>	<b>1.6600e-003</b>	<b>0.2392</b>	<b>0.2408</b>	<b>0.0000</b>	<b>409.9353</b>	<b>409.9353</b>	<b>0.1297</b>	<b>0.0000</b>	<b>413.1778</b>

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**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0222	0.7739	0.1688	1.9900e-003	0.0439	2.8900e-003	0.0468	0.0120	2.7700e-003	0.0148	0.0000	196.8835	196.8835	0.0178	0.0000	197.3291
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	0.0115	0.1079	3.2000e-004	0.0318	2.2000e-004	0.0320	8.4400e-003	2.1000e-004	8.6500e-003	0.0000	29.3673	29.3673	9.1000e-004	0.0000	29.3901
<b>Total</b>	<b>0.0363</b>	<b>0.7854</b>	<b>0.2768</b>	<b>2.3100e-003</b>	<b>0.0757</b>	<b>3.1100e-003</b>	<b>0.0788</b>	<b>0.0205</b>	<b>2.9800e-003</b>	<b>0.0235</b>	<b>0.0000</b>	<b>226.2508</b>	<b>226.2508</b>	<b>0.0187</b>	<b>0.0000</b>	<b>226.7193</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.9300e-003	0.0000	5.9300e-003	7.5000e-004	0.0000	7.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1118	2.3232	3.0728	4.5600e-003		0.1268	0.1268		0.1268	0.1268	0.0000	409.9348	409.9348	0.1297	0.0000	413.1773
<b>Total</b>	<b>0.1118</b>	<b>2.3232</b>	<b>3.0728</b>	<b>4.5600e-003</b>	<b>5.9300e-003</b>	<b>0.1268</b>	<b>0.1328</b>	<b>7.5000e-004</b>	<b>0.1268</b>	<b>0.1276</b>	<b>0.0000</b>	<b>409.9348</b>	<b>409.9348</b>	<b>0.1297</b>	<b>0.0000</b>	<b>413.1773</b>

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**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0222	0.7739	0.1688	1.9900e-003	0.0439	2.8900e-003	0.0468	0.0120	2.7700e-003	0.0148	0.0000	196.8835	196.8835	0.0178	0.0000	197.3291
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	0.0115	0.1079	3.2000e-004	0.0318	2.2000e-004	0.0320	8.4400e-003	2.1000e-004	8.6500e-003	0.0000	29.3673	29.3673	9.1000e-004	0.0000	29.3901
<b>Total</b>	<b>0.0363</b>	<b>0.7854</b>	<b>0.2768</b>	<b>2.3100e-003</b>	<b>0.0757</b>	<b>3.1100e-003</b>	<b>0.0788</b>	<b>0.0205</b>	<b>2.9800e-003</b>	<b>0.0235</b>	<b>0.0000</b>	<b>226.2508</b>	<b>226.2508</b>	<b>0.0187</b>	<b>0.0000</b>	<b>226.7193</b>

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0132	0.0000	0.0132	1.6600e-003	0.0000	1.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6500e-003	0.0870	0.0584	9.0000e-005		4.8900e-003	4.8900e-003		4.5000e-003	4.5000e-003	0.0000	8.1858	8.1858	2.6500e-003	0.0000	8.2519
<b>Total</b>	<b>8.6500e-003</b>	<b>0.0870</b>	<b>0.0584</b>	<b>9.0000e-005</b>	<b>0.0132</b>	<b>4.8900e-003</b>	<b>0.0181</b>	<b>1.6600e-003</b>	<b>4.5000e-003</b>	<b>6.1600e-003</b>	<b>0.0000</b>	<b>8.1858</b>	<b>8.1858</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>8.2519</b>



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**3.2 Trenching - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-004	0.0147	3.3600e-003	4.0000e-005	0.0334	5.0000e-005	0.0334	8.2100e-003	4.0000e-005	8.2600e-003	0.0000	3.9750	3.9750	3.6000e-004	0.0000	3.9840
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.1000e-004	2.0200e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5804	0.5804	2.0000e-005	0.0000	0.5808
<b>Total</b>	<b>6.8000e-004</b>	<b>0.0149</b>	<b>5.3800e-003</b>	<b>5.0000e-005</b>	<b>0.0340</b>	<b>5.0000e-005</b>	<b>0.0341</b>	<b>8.3800e-003</b>	<b>4.0000e-005</b>	<b>8.4400e-003</b>	<b>0.0000</b>	<b>4.5554</b>	<b>4.5554</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>4.5648</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.9300e-003	0.0000	5.9300e-003	7.5000e-004	0.0000	7.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2800e-003	0.0474	0.0627	9.0000e-005		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	8.1857	8.1857	2.6500e-003	0.0000	8.2519
<b>Total</b>	<b>2.2800e-003</b>	<b>0.0474</b>	<b>0.0627</b>	<b>9.0000e-005</b>	<b>5.9300e-003</b>	<b>2.5900e-003</b>	<b>8.5200e-003</b>	<b>7.5000e-004</b>	<b>2.5900e-003</b>	<b>3.3400e-003</b>	<b>0.0000</b>	<b>8.1857</b>	<b>8.1857</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>8.2519</b>

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**3.2 Trenching - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.1000e-004	0.0147	3.3600e-003	4.0000e-005	0.0334	5.0000e-005	0.0334	8.2100e-003	4.0000e-005	8.2600e-003	0.0000	3.9750	3.9750	3.6000e-004	0.0000	3.9840
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	2.1000e-004	2.0200e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5804	0.5804	2.0000e-005	0.0000	0.5808
<b>Total</b>	<b>6.8000e-004</b>	<b>0.0149</b>	<b>5.3800e-003</b>	<b>5.0000e-005</b>	<b>0.0340</b>	<b>5.0000e-005</b>	<b>0.0341</b>	<b>8.3800e-003</b>	<b>4.0000e-005</b>	<b>8.4400e-003</b>	<b>0.0000</b>	<b>4.5554</b>	<b>4.5554</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>4.5648</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1614	1.7588	1.1151	2.0800e-003		0.0904	0.0904		0.0832	0.0832	0.0000	182.8139	182.8139	0.0591	0.0000	184.2920
<b>Total</b>	<b>0.1614</b>	<b>1.7588</b>	<b>1.1151</b>	<b>2.0800e-003</b>		<b>0.0904</b>	<b>0.0904</b>		<b>0.0832</b>	<b>0.0832</b>	<b>0.0000</b>	<b>182.8139</b>	<b>182.8139</b>	<b>0.0591</b>	<b>0.0000</b>	<b>184.2920</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	0.0218	5.7800e-003	5.0000e-005	1.2000e-003	1.0000e-004	1.3000e-003	3.5000e-004	1.0000e-004	4.4000e-004	0.0000	4.8722	4.8722	3.9000e-004	0.0000	4.8818
Worker	8.2900e-003	6.4900e-003	0.0620	2.0000e-004	0.0200	1.4000e-004	0.0201	5.3000e-003	1.3000e-004	5.4300e-003	0.0000	17.8585	17.8585	5.2000e-004	0.0000	17.8714
<b>Total</b>	<b>9.0100e-003</b>	<b>0.0283</b>	<b>0.0678</b>	<b>2.5000e-004</b>	<b>0.0212</b>	<b>2.4000e-004</b>	<b>0.0214</b>	<b>5.6500e-003</b>	<b>2.3000e-004</b>	<b>5.8700e-003</b>	<b>0.0000</b>	<b>22.7307</b>	<b>22.7307</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>22.7533</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0511	1.0671	1.3151	2.0800e-003		0.0572	0.0572		0.0572	0.0572	0.0000	182.8137	182.8137	0.0591	0.0000	184.2918
<b>Total</b>	<b>0.0511</b>	<b>1.0671</b>	<b>1.3151</b>	<b>2.0800e-003</b>		<b>0.0572</b>	<b>0.0572</b>		<b>0.0572</b>	<b>0.0572</b>	<b>0.0000</b>	<b>182.8137</b>	<b>182.8137</b>	<b>0.0591</b>	<b>0.0000</b>	<b>184.2918</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.2000e-004	0.0218	5.7800e-003	5.0000e-005	1.2000e-003	1.0000e-004	1.3000e-003	3.5000e-004	1.0000e-004	4.4000e-004	0.0000	4.8722	4.8722	3.9000e-004	0.0000	4.8818
Worker	8.2900e-003	6.4900e-003	0.0620	2.0000e-004	0.0200	1.4000e-004	0.0201	5.3000e-003	1.3000e-004	5.4300e-003	0.0000	17.8585	17.8585	5.2000e-004	0.0000	17.8714
<b>Total</b>	<b>9.0100e-003</b>	<b>0.0283</b>	<b>0.0678</b>	<b>2.5000e-004</b>	<b>0.0212</b>	<b>2.4000e-004</b>	<b>0.0214</b>	<b>5.6500e-003</b>	<b>2.3000e-004</b>	<b>5.8700e-003</b>	<b>0.0000</b>	<b>22.7307</b>	<b>22.7307</b>	<b>9.1000e-004</b>	<b>0.0000</b>	<b>22.7533</b>

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0393	0.4079	0.4249	6.6000e-004		0.0218	0.0218		0.0201	0.0201	0.0000	58.0818	58.0818	0.0188	0.0000	58.5515
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0393</b>	<b>0.4079</b>	<b>0.4249</b>	<b>6.6000e-004</b>		<b>0.0218</b>	<b>0.0218</b>		<b>0.0201</b>	<b>0.0201</b>	<b>0.0000</b>	<b>58.0818</b>	<b>58.0818</b>	<b>0.0188</b>	<b>0.0000</b>	<b>58.5515</b>

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**3.4 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-003	1.8800e-003	0.0180	6.0000e-005	5.7900e-003	4.0000e-005	5.8300e-003	1.5400e-003	4.0000e-005	1.5700e-003	0.0000	5.1790	5.1790	1.5000e-004	0.0000	5.1827
<b>Total</b>	<b>2.4000e-003</b>	<b>1.8800e-003</b>	<b>0.0180</b>	<b>6.0000e-005</b>	<b>5.7900e-003</b>	<b>4.0000e-005</b>	<b>5.8300e-003</b>	<b>1.5400e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>5.1790</b>	<b>5.1790</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>5.1827</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0163	0.3276	0.5016	6.6000e-004		0.0177	0.0177		0.0177	0.0177	0.0000	58.0818	58.0818	0.0188	0.0000	58.5514
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0163</b>	<b>0.3276</b>	<b>0.5016</b>	<b>6.6000e-004</b>		<b>0.0177</b>	<b>0.0177</b>		<b>0.0177</b>	<b>0.0177</b>	<b>0.0000</b>	<b>58.0818</b>	<b>58.0818</b>	<b>0.0188</b>	<b>0.0000</b>	<b>58.5514</b>

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**3.4 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-003	1.8800e-003	0.0180	6.0000e-005	5.7900e-003	4.0000e-005	5.8300e-003	1.5400e-003	4.0000e-005	1.5700e-003	0.0000	5.1790	5.1790	1.5000e-004	0.0000	5.1827
<b>Total</b>	<b>2.4000e-003</b>	<b>1.8800e-003</b>	<b>0.0180</b>	<b>6.0000e-005</b>	<b>5.7900e-003</b>	<b>4.0000e-005</b>	<b>5.8300e-003</b>	<b>1.5400e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>5.1790</b>	<b>5.1790</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>5.1827</b>

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0891	0.9173	1.0404	1.6200e-003		0.0481	0.0481		0.0443	0.0443	0.0000	142.1667	142.1667	0.0460	0.0000	143.3162
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0891</b>	<b>0.9173</b>	<b>1.0404</b>	<b>1.6200e-003</b>		<b>0.0481</b>	<b>0.0481</b>		<b>0.0443</b>	<b>0.0443</b>	<b>0.0000</b>	<b>142.1667</b>	<b>142.1667</b>	<b>0.0460</b>	<b>0.0000</b>	<b>143.3162</b>

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**3.4 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5600e-003	4.1900e-003	0.0412	1.4000e-004	0.0142	1.0000e-004	0.0143	3.7600e-003	9.0000e-005	3.8500e-003	0.0000	12.2532	12.2532	3.4000e-004	0.0000	12.2617
<b>Total</b>	<b>5.5600e-003</b>	<b>4.1900e-003</b>	<b>0.0412</b>	<b>1.4000e-004</b>	<b>0.0142</b>	<b>1.0000e-004</b>	<b>0.0143</b>	<b>3.7600e-003</b>	<b>9.0000e-005</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>12.2532</b>	<b>12.2532</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>12.2617</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0398	0.8020	1.2280	1.6200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	142.1665	142.1665	0.0460	0.0000	143.3160
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0398</b>	<b>0.8020</b>	<b>1.2280</b>	<b>1.6200e-003</b>		<b>0.0433</b>	<b>0.0433</b>		<b>0.0433</b>	<b>0.0433</b>	<b>0.0000</b>	<b>142.1665</b>	<b>142.1665</b>	<b>0.0460</b>	<b>0.0000</b>	<b>143.3160</b>

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**3.4 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5600e-003	4.1900e-003	0.0412	1.4000e-004	0.0142	1.0000e-004	0.0143	3.7600e-003	9.0000e-005	3.8500e-003	0.0000	12.2532	12.2532	3.4000e-004	0.0000	12.2617
<b>Total</b>	<b>5.5600e-003</b>	<b>4.1900e-003</b>	<b>0.0412</b>	<b>1.4000e-004</b>	<b>0.0142</b>	<b>1.0000e-004</b>	<b>0.0143</b>	<b>3.7600e-003</b>	<b>9.0000e-005</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>12.2532</b>	<b>12.2532</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>12.2617</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4916	3.0000e-005	3.4100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1400e-003	6.1400e-003	1.0000e-005	0.0000	6.4600e-003
Unmitigated	2.4919	5.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0114	0.0114	3.0000e-005	0.0000	0.0122

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4914					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.8800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0114	0.0114	3.0000e-005	0.0000	0.0122
<b>Total</b>	<b>2.4919</b>	<b>5.0000e-005</b>	<b>5.8800e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0114</b>	<b>0.0114</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0122</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.4914					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.3000e-004	3.0000e-005	3.4100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.1400e-003	6.1400e-003	1.0000e-005	0.0000	6.4600e-003
<b>Total</b>	<b>2.4916</b>	<b>3.0000e-005</b>	<b>3.4100e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>6.1400e-003</b>	<b>6.1400e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>6.4600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	637.91	1000sqft	14.64	637,908.36	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	318954	0
tblAreaCoating	Area_Nonresidential_Interior	956862	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	200.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblConstructionPhase	NumDays	20.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	637,910.00	637,908.36
tblLandUse	LandUseSquareFeet	637,910.00	637,908.36
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	791.01	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,154.00
tblTripsAndVMT	VendorTripNumber	105.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblTripsAndVMT	WorkerTripNumber	268.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	147,516,687.50	0.00

## 2.0 Emissions Summary

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.9555	54.5431	32.4372	0.0705	0.9211	2.6841	3.6052	0.2298	2.4705	2.7002	0.0000	7,189.8216	7,189.8216	1.6671	0.0000	7,231.4985
2020	4.6624	50.7879	31.9068	0.0701	17.6088	2.4698	20.0787	4.3259	2.2731	6.5989	0.0000	7,055.8843	7,055.8843	1.6634	0.0000	7,097.4681
2021	1.3324	12.9726	15.2785	0.0248	0.2044	0.6791	0.8835	0.0542	0.6248	0.6790	0.0000	2,407.9287	2,407.9287	0.7195	0.0000	2,425.9147
<b>Maximum</b>	<b>4.9555</b>	<b>54.5431</b>	<b>32.4372</b>	<b>0.0705</b>	<b>17.6088</b>	<b>2.6841</b>	<b>20.0787</b>	<b>4.3259</b>	<b>2.4705</b>	<b>6.5989</b>	<b>0.0000</b>	<b>7,189.8216</b>	<b>7,189.8216</b>	<b>1.6671</b>	<b>0.0000</b>	<b>7,231.4985</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.5063	31.5521	34.2093	0.0705	0.8486	1.3256	2.1743	0.2207	1.3242	1.5448	0.0000	7,189.8216	7,189.8216	1.6671	0.0000	7,231.4985
2020	1.4772	30.9902	34.0720	0.0701	17.5364	1.3193	18.8557	4.3167	1.3182	5.6349	0.0000	7,055.8843	7,055.8843	1.6634	0.0000	7,097.4681
2021	0.6378	11.3487	17.9209	0.0248	0.2044	0.6107	0.8151	0.0542	0.6106	0.6648	0.0000	2,407.9287	2,407.9287	0.7195	0.0000	2,425.9147
<b>Maximum</b>	<b>1.5063</b>	<b>31.5521</b>	<b>34.2093</b>	<b>0.0705</b>	<b>17.5364</b>	<b>1.3256</b>	<b>18.8557</b>	<b>4.3167</b>	<b>1.3242</b>	<b>5.6349</b>	<b>0.0000</b>	<b>7,189.8216</b>	<b>7,189.8216</b>	<b>1.6671</b>	<b>0.0000</b>	<b>7,231.4985</b>



## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	66.93	37.54	-8.26	0.00	0.77	44.19	11.08	0.40	39.40	21.38	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.6574	6.0000e-004	0.0654	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1396	0.1396	3.7000e-004		0.1489
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>13.6574</b>	<b>6.0000e-004</b>	<b>0.0654</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1396</b>	<b>0.1396</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>0.1489</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.6538	3.3000e-004	0.0379	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0752	0.0752	1.6000e-004		0.0792
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>13.6538</b>	<b>3.3000e-004</b>	<b>0.0379</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0752</b>	<b>0.0752</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0792</b>

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	45.00	42.03	0.00	0.00	56.52	56.52	0.00	56.52	56.52	0.00	46.11	46.11	56.76	0.00	46.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	4/2/2019	1/6/2020	5	200	
2	Building Construction	Building Construction	1/7/2020	10/12/2020	5	200	Pipeline installation and backfill.
3	Paving	Paving	10/13/2020	7/19/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	5,154.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	16.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1317	0.0000	0.1317	0.0166	0.0000	0.0166			0.0000			0.0000
Off-Road	4.5905	46.6967	29.5835	0.0465		2.6526	2.6526		2.4404	2.4404		4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>4.5905</b>	<b>46.6967</b>	<b>29.5835</b>	<b>0.0465</b>	<b>0.1317</b>	<b>2.6526</b>	<b>2.7844</b>	<b>0.0166</b>	<b>2.4404</b>	<b>2.4570</b>		<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2237	7.7406	1.6709	0.0205	0.4573	0.0292	0.4865	0.1251	0.0280	0.1531		2,230.3232	2,230.3232	0.1974		2,235.2575
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.3650</b>	<b>7.8464</b>	<b>2.8537</b>	<b>0.0240</b>	<b>0.7894</b>	<b>0.0315</b>	<b>0.8209</b>	<b>0.2132</b>	<b>0.0301</b>	<b>0.2432</b>		<b>2,578.8389</b>	<b>2,578.8389</b>	<b>0.2082</b>		<b>2,584.0442</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0593	0.0000	0.0593	7.4600e-003	0.0000	7.4600e-003			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0465		1.2942	1.2942		1.2942	1.2942	0.0000	4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0465</b>	<b>0.0593</b>	<b>1.2942</b>	<b>1.3534</b>	<b>7.4600e-003</b>	<b>1.2942</b>	<b>1.3016</b>	<b>0.0000</b>	<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2237	7.7406	1.6709	0.0205	0.4573	0.0292	0.4865	0.1251	0.0280	0.1531		2,230.3232	2,230.3232	0.1974		2,235.2575
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.3650</b>	<b>7.8464</b>	<b>2.8537</b>	<b>0.0240</b>	<b>0.7894</b>	<b>0.0315</b>	<b>0.8209</b>	<b>0.2132</b>	<b>0.0301</b>	<b>0.2432</b>		<b>2,578.8389</b>	<b>2,578.8389</b>	<b>0.2082</b>		<b>2,584.0442</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1317	0.0000	0.1317	0.0166	0.0000	0.0166			0.0000			0.0000
Off-Road	4.3264	43.5035	29.1902	0.0466		2.4447	2.4447		2.2491	2.2491		4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>4.3264</b>	<b>43.5035</b>	<b>29.1902</b>	<b>0.0466</b>	<b>0.1317</b>	<b>2.4447</b>	<b>2.5764</b>	<b>0.0166</b>	<b>2.2491</b>	<b>2.2657</b>		<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2037	7.1889	1.6322	0.0202	17.1450	0.0229	17.1679	4.2212	0.0220	4.2431		2,206.7538	2,206.7538	0.1944		2,211.6134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.3359</b>	<b>7.2845</b>	<b>2.7165</b>	<b>0.0236</b>	<b>17.4771</b>	<b>0.0252</b>	<b>17.5023</b>	<b>4.3093</b>	<b>0.0240</b>	<b>4.3333</b>		<b>2,544.2642</b>	<b>2,544.2642</b>	<b>0.2042</b>		<b>2,549.3693</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0593	0.0000	0.0593	7.4600e-003	0.0000	7.4600e-003			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>	<b>0.0593</b>	<b>1.2942</b>	<b>1.3534</b>	<b>7.4600e-003</b>	<b>1.2942</b>	<b>1.3016</b>	<b>0.0000</b>	<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2037	7.1889	1.6322	0.0202	17.1450	0.0229	17.1679	4.2212	0.0220	4.2431		2,206.7538	2,206.7538	0.1944		2,211.6134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.3359</b>	<b>7.2845</b>	<b>2.7165</b>	<b>0.0236</b>	<b>17.4771</b>	<b>0.0252</b>	<b>17.5023</b>	<b>4.3093</b>	<b>0.0240</b>	<b>4.3333</b>		<b>2,544.2642</b>	<b>2,544.2642</b>	<b>0.2042</b>		<b>2,549.3693</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6138	17.5884	11.1507	0.0208		0.9041	0.9041		0.8318	0.8318		2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>1.6138</b>	<b>17.5884</b>	<b>11.1507</b>	<b>0.0208</b>		<b>0.9041</b>	<b>0.9041</b>		<b>0.8318</b>	<b>0.8318</b>		<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0884</b>	<b>0.2746</b>	<b>0.7219</b>	<b>2.5900e-003</b>	<b>0.2166</b>	<b>2.3800e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2300e-003</b>	<b>0.0600</b>		<b>262.0422</b>	<b>262.0422</b>	<b>0.0102</b>		<b>262.2964</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0884</b>	<b>0.2746</b>	<b>0.7219</b>	<b>2.5900e-003</b>	<b>0.2166</b>	<b>2.3800e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2300e-003</b>	<b>0.0600</b>		<b>262.0422</b>	<b>262.0422</b>	<b>0.0102</b>		<b>262.2964</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3566</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

**4.0 Operational Detail - Mobile**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000



Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.6538	3.3000e-004	0.0379	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0752	0.0752	1.6000e-004		0.0792
Unmitigated	13.6574	6.0000e-004	0.0654	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1396	0.1396	3.7000e-004		0.1489

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1100e-003	6.0000e-004	0.0654	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1396	0.1396	3.7000e-004		0.1489
<b>Total</b>	<b>13.6574</b>	<b>6.0000e-004</b>	<b>0.0654</b>	<b>0.0000</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1396</b>	<b>0.1396</b>	<b>3.7000e-004</b>		<b>0.1489</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5900e-003	3.3000e-004	0.0379	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0752	0.0752	1.6000e-004		0.0792
<b>Total</b>	<b>13.6538</b>	<b>3.3000e-004</b>	<b>0.0379</b>	<b>0.0000</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0752</b>	<b>0.0752</b>	<b>1.6000e-004</b>		<b>0.0792</b>

**7.0 Water Detail**

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	637.91	1000sqft	14.64	637,908.36	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	318954	0
tblAreaCoating	Area_Nonresidential_Interior	956862	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	300.00	200.00

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblConstructionPhase	NumDays	20.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	637,910.00	637,908.36
tblLandUse	LandUseSquareFeet	637,910.00	637,908.36
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	791.01	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,154.00
tblTripsAndVMT	VendorTripNumber	105.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00



## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblTripsAndVMT	WorkerTripNumber	268.00	16.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	147,516,687.50	0.00

## 2.0 Emissions Summary

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.9841	54.6354	32.4689	0.0699	0.9211	2.6848	3.6059	0.2298	2.4711	2.7009	0.0000	7,130.809 9	7,130.809 9	1.6736	0.0000	7,172.649 1
2020	4.6891	50.8687	31.9316	0.0696	17.6088	2.4703	20.0792	4.3259	2.2736	6.5994	0.0000	6,997.217 9	6,997.217 9	1.6694	0.0000	7,038.952 8
2021	1.3448	12.9791	15.2291	0.0247	0.2044	0.6791	0.8835	0.0542	0.6248	0.6790	0.0000	2,395.551 5	2,395.551 5	0.7191	0.0000	2,413.528 6
<b>Maximum</b>	<b>4.9841</b>	<b>54.6354</b>	<b>32.4689</b>	<b>0.0699</b>	<b>17.6088</b>	<b>2.6848</b>	<b>20.0792</b>	<b>4.3259</b>	<b>2.4711</b>	<b>6.5994</b>	<b>0.0000</b>	<b>7,130.809 9</b>	<b>7,130.809 9</b>	<b>1.6736</b>	<b>0.0000</b>	<b>7,172.649 1</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.5348	31.6444	34.2409	0.0699	0.8486	1.3263	2.1750	0.2207	1.3249	1.5455	0.0000	7,130.809 9	7,130.809 9	1.6736	0.0000	7,172.649 1
2020	1.5040	31.0710	34.0969	0.0696	17.5364	1.3198	18.8562	4.3167	1.3186	5.6353	0.0000	6,997.217 9	6,997.217 9	1.6694	0.0000	7,038.952 8
2021	0.6502	11.3552	17.8716	0.0247	0.2044	0.6107	0.8151	0.0542	0.6106	0.6648	0.0000	2,395.551 5	2,395.551 5	0.7191	0.0000	2,413.528 6
<b>Maximum</b>	<b>1.5348</b>	<b>31.6444</b>	<b>34.2409</b>	<b>0.0699</b>	<b>17.5364</b>	<b>1.3263</b>	<b>18.8562</b>	<b>4.3167</b>	<b>1.3249</b>	<b>5.6353</b>	<b>0.0000</b>	<b>7,130.809 9</b>	<b>7,130.809 9</b>	<b>1.6736</b>	<b>0.0000</b>	<b>7,172.649 1</b>

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	66.52	37.48	-8.26	0.00	0.77	44.18	11.08	0.40	39.40	21.38	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.6574	6.0000e-004	0.0654	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1396	0.1396	3.7000e-004		0.1489
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>13.6574</b>	<b>6.0000e-004</b>	<b>0.0654</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1396</b>	<b>0.1396</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>0.1489</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.6538	3.3000e-004	0.0379	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0752	0.0752	1.6000e-004		0.0792
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>13.6538</b>	<b>3.3000e-004</b>	<b>0.0379</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0752</b>	<b>0.0752</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0792</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	45.00	42.03	0.00	0.00	56.52	56.52	0.00	56.52	56.52	0.00	46.11	46.11	56.76	0.00	46.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	4/2/2019	1/6/2020	5	200	
2	Building Construction	Building Construction	1/7/2020	10/12/2020	5	200	Pipeline installation and backfill.
3	Paving	Paving	10/13/2020	7/19/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	5,154.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	16.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1317	0.0000	0.1317	0.0166	0.0000	0.0166			0.0000			0.0000
Off-Road	4.5905	46.6967	29.5835	0.0465		2.6526	2.6526		2.4404	2.4404		4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>4.5905</b>	<b>46.6967</b>	<b>29.5835</b>	<b>0.0465</b>	<b>0.1317</b>	<b>2.6526</b>	<b>2.7844</b>	<b>0.0166</b>	<b>2.4404</b>	<b>2.4570</b>		<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2300	7.8199	1.7907	0.0201	0.4573	0.0299	0.4872	0.1251	0.0286	0.1537		2,192.7921	2,192.7921	0.2045		2,197.9051
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.3936</b>	<b>7.9387</b>	<b>2.8854</b>	<b>0.0234</b>	<b>0.7894</b>	<b>0.0322</b>	<b>0.8215</b>	<b>0.2132</b>	<b>0.0307</b>	<b>0.2439</b>		<b>2,519.8272</b>	<b>2,519.8272</b>	<b>0.2147</b>		<b>2,525.1948</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0593	0.0000	0.0593	7.4600e-003	0.0000	7.4600e-003			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0465		1.2942	1.2942		1.2942	1.2942	0.0000	4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0465</b>	<b>0.0593</b>	<b>1.2942</b>	<b>1.3534</b>	<b>7.4600e-003</b>	<b>1.2942</b>	<b>1.3016</b>	<b>0.0000</b>	<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2300	7.8199	1.7907	0.0201	0.4573	0.0299	0.4872	0.1251	0.0286	0.1537		2,192.7921	2,192.7921	0.2045		2,197.9051
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.3936</b>	<b>7.9387</b>	<b>2.8854</b>	<b>0.0234</b>	<b>0.7894</b>	<b>0.0322</b>	<b>0.8215</b>	<b>0.2132</b>	<b>0.0307</b>	<b>0.2439</b>		<b>2,519.8272</b>	<b>2,519.8272</b>	<b>0.2147</b>		<b>2,525.1948</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1317	0.0000	0.1317	0.0166	0.0000	0.0166			0.0000			0.0000
Off-Road	4.3264	43.5035	29.1902	0.0466		2.4447	2.4447		2.2491	2.2491		4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>4.3264</b>	<b>43.5035</b>	<b>29.1902</b>	<b>0.0466</b>	<b>0.1317</b>	<b>2.4447</b>	<b>2.5764</b>	<b>0.0166</b>	<b>2.2491</b>	<b>2.2657</b>		<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2093	7.2581	1.7401	0.0198	17.1450	0.0234	17.1684	4.2212	0.0224	4.2436		2,168.8945	2,168.8945	0.2010		2,173.9205
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.3627</b>	<b>7.3653</b>	<b>2.7414</b>	<b>0.0230</b>	<b>17.4771</b>	<b>0.0257</b>	<b>17.5028</b>	<b>4.3093</b>	<b>0.0245</b>	<b>4.3337</b>		<b>2,485.5979</b>	<b>2,485.5979</b>	<b>0.2103</b>		<b>2,490.8541</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0593	0.0000	0.0593	7.4600e-003	0.0000	7.4600e-003			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>	<b>0.0593</b>	<b>1.2942</b>	<b>1.3534</b>	<b>7.4600e-003</b>	<b>1.2942</b>	<b>1.3016</b>	<b>0.0000</b>	<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2093	7.2581	1.7401	0.0198	17.1450	0.0234	17.1684	4.2212	0.0224	4.2436		2,168.8945	2,168.8945	0.2010		2,173.9205
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.3627</b>	<b>7.3653</b>	<b>2.7414</b>	<b>0.0230</b>	<b>17.4771</b>	<b>0.0257</b>	<b>17.5028</b>	<b>4.3093</b>	<b>0.0245</b>	<b>4.3337</b>		<b>2,485.5979</b>	<b>2,485.5979</b>	<b>0.2103</b>		<b>2,490.8541</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6138	17.5884	11.1507	0.0208		0.9041	0.9041		0.8318	0.8318		2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>1.6138</b>	<b>17.5884</b>	<b>11.1507</b>	<b>0.0208</b>		<b>0.9041</b>	<b>0.9041</b>		<b>0.8318</b>	<b>0.8318</b>		<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.1017</b>	<b>0.2812</b>	<b>0.6772</b>	<b>2.4500e-003</b>	<b>0.2166</b>	<b>2.4100e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2500e-003</b>	<b>0.0600</b>		<b>247.7223</b>	<b>247.7223</b>	<b>0.0101</b>		<b>247.9739</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.1017</b>	<b>0.2812</b>	<b>0.6772</b>	<b>2.4500e-003</b>	<b>0.2166</b>	<b>2.4100e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2500e-003</b>	<b>0.0600</b>		<b>247.7223</b>	<b>247.7223</b>	<b>0.0101</b>		<b>247.9739</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3566</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

**4.0 Operational Detail - Mobile**



Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	13.6538	3.3000e-004	0.0379	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0752	0.0752	1.6000e-004		0.0792
Unmitigated	13.6574	6.0000e-004	0.0654	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1396	0.1396	3.7000e-004		0.1489

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.1100e-003	6.0000e-004	0.0654	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1396	0.1396	3.7000e-004		0.1489
<b>Total</b>	<b>13.6574</b>	<b>6.0000e-004</b>	<b>0.0654</b>	<b>0.0000</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>2.3000e-004</b>	<b>2.3000e-004</b>		<b>0.1396</b>	<b>0.1396</b>	<b>3.7000e-004</b>		<b>0.1489</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	13.6512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.5900e-003	3.3000e-004	0.0379	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0752	0.0752	1.6000e-004		0.0792
<b>Total</b>	<b>13.6538</b>	<b>3.3000e-004</b>	<b>0.0379</b>	<b>0.0000</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>1.0000e-004</b>	<b>1.0000e-004</b>		<b>0.0752</b>	<b>0.0752</b>	<b>1.6000e-004</b>		<b>0.0792</b>

**7.0 Water Detail**

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

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**7.1 Mitigation Measures Water****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Trenchless - San Diego County APCD Air District, Annual

**Morena Pipeline-Trenchless**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



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Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	25.00
tblConstructionPhase	NumDays	1.00	150.00
tblConstructionPhase	NumDays	1.00	150.00
tblEnergyUse	LightingElect	2.91	0.00

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tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblProjectCharacteristics	OperationalYear	2018	2022

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tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2324	2.1901	1.4981	2.5500e-003	0.0167	0.1216	0.1383	4.4500e-003	0.1135	0.1180	0.0000	227.5014	227.5014	0.0569	0.0000	228.9244
2020	0.1910	1.7175	1.3363	2.2900e-003	0.0256	0.0973	0.1229	6.8100e-003	0.0908	0.0976	0.0000	201.0499	201.0499	0.0477	0.0000	202.2425
2021	0.0710	0.6361	0.4991	8.8000e-004	9.5800e-003	0.0346	0.0442	2.5500e-003	0.0323	0.0349	0.0000	77.1053	77.1053	0.0179	0.0000	77.5517
<b>Maximum</b>	<b>0.2324</b>	<b>2.1901</b>	<b>1.4981</b>	<b>2.5500e-003</b>	<b>0.0256</b>	<b>0.1216</b>	<b>0.1383</b>	<b>6.8100e-003</b>	<b>0.1135</b>	<b>0.1180</b>	<b>0.0000</b>	<b>227.5014</b>	<b>227.5014</b>	<b>0.0569</b>	<b>0.0000</b>	<b>228.9244</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0635	1.1744	1.5803	2.5500e-003	0.0167	0.0641	0.0808	4.4500e-003	0.0641	0.0685	0.0000	227.5011	227.5011	0.0569	0.0000	228.9241
2020	0.0579	1.0204	1.4065	2.2900e-003	0.0256	0.0580	0.0835	6.8100e-003	0.0579	0.0648	0.0000	201.0497	201.0497	0.0477	0.0000	202.2422
2021	0.0219	0.3880	0.5317	8.8000e-004	9.5800e-003	0.0215	0.0310	2.5500e-003	0.0215	0.0240	0.0000	77.1052	77.1052	0.0179	0.0000	77.5516
<b>Maximum</b>	<b>0.0635</b>	<b>1.1744</b>	<b>1.5803</b>	<b>2.5500e-003</b>	<b>0.0256</b>	<b>0.0641</b>	<b>0.0835</b>	<b>6.8100e-003</b>	<b>0.0641</b>	<b>0.0685</b>	<b>0.0000</b>	<b>227.5011</b>	<b>227.5011</b>	<b>0.0569</b>	<b>0.0000</b>	<b>228.9241</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	71.02	43.16	-5.55	0.00	0.00	43.39	36.02	0.00	39.38	37.21	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-2-2019	7-1-2019	0.2961	0.1596
		Highest	0.2961	0.1596

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0135	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0135	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0125	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0125</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.49	0.00	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	57.14

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	4/2/2019	5/6/2019	5	25	
2	Portal Excavation	Site Preparation	5/7/2019	12/2/2019	5	150	
3	Site Restoration	Site Preparation	12/3/2019	6/29/2020	5	150	
4	Tunnel Excavation	Trenching	6/30/2020	3/22/2021	5	190	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.2729	0.1525	3.1000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	27.9524	27.9524	8.8400e-003	0.0000	28.1735
<b>Total</b>	<b>0.0223</b>	<b>0.2729</b>	<b>0.1525</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.0109</b>	<b>0.0109</b>	<b>0.0000</b>	<b>0.0100</b>	<b>0.0100</b>	<b>0.0000</b>	<b>27.9524</b>	<b>27.9524</b>	<b>8.8400e-003</b>	<b>0.0000</b>	<b>28.1735</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.5000e-004	4.2400e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1526	1.1526	4.0000e-005	0.0000	1.1535
<b>Total</b>	<b>5.5000e-004</b>	<b>4.5000e-004</b>	<b>4.2400e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>1.0000e-005</b>	<b>1.2600e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1526</b>	<b>1.1526</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.1535</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6400e-003	0.1510	0.1742	3.1000e-004		6.4200e-003	6.4200e-003		6.4200e-003	6.4200e-003	0.0000	27.9524	27.9524	8.8400e-003	0.0000	28.1735
<b>Total</b>	<b>7.6400e-003</b>	<b>0.1510</b>	<b>0.1742</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>6.4200e-003</b>	<b>6.4200e-003</b>	<b>0.0000</b>	<b>6.4200e-003</b>	<b>6.4200e-003</b>	<b>0.0000</b>	<b>27.9524</b>	<b>27.9524</b>	<b>8.8400e-003</b>	<b>0.0000</b>	<b>28.1735</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	4.5000e-004	4.2400e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1526	1.1526	4.0000e-005	0.0000	1.1535
<b>Total</b>	<b>5.5000e-004</b>	<b>4.5000e-004</b>	<b>4.2400e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>1.0000e-005</b>	<b>1.2600e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1526</b>	<b>1.1526</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.1535</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	1.8866	1.2646	2.0400e-003		0.1089	0.1089		0.1019	0.1019	0.0000	181.1521	181.1521	0.0467	0.0000	182.3188
<b>Total</b>	<b>0.2002</b>	<b>1.8866</b>	<b>1.2646</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>0.1089</b>	<b>0.1089</b>	<b>0.0000</b>	<b>0.1019</b>	<b>0.1019</b>	<b>0.0000</b>	<b>181.1521</b>	<b>181.1521</b>	<b>0.0467</b>	<b>0.0000</b>	<b>182.3188</b>

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**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6400e-003	5.3900e-003	0.0508	1.5000e-004	0.0150	1.1000e-004	0.0151	3.9800e-003	1.0000e-004	4.0700e-003	0.0000	13.8308	13.8308	4.3000e-004	0.0000	13.8415
<b>Total</b>	<b>6.6400e-003</b>	<b>5.3900e-003</b>	<b>0.0508</b>	<b>1.5000e-004</b>	<b>0.0150</b>	<b>1.1000e-004</b>	<b>0.0151</b>	<b>3.9800e-003</b>	<b>1.0000e-004</b>	<b>4.0700e-003</b>	<b>0.0000</b>	<b>13.8308</b>	<b>13.8308</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>13.8415</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.9992	1.3247	2.0400e-003		0.0563	0.0563		0.0563	0.0563	0.0000	181.1519	181.1519	0.0467	0.0000	182.3186
<b>Total</b>	<b>0.0476</b>	<b>0.9992</b>	<b>1.3247</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>0.0563</b>	<b>0.0563</b>	<b>0.0000</b>	<b>0.0563</b>	<b>0.0563</b>	<b>0.0000</b>	<b>181.1519</b>	<b>181.1519</b>	<b>0.0467</b>	<b>0.0000</b>	<b>182.3186</b>

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**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6400e-003	5.3900e-003	0.0508	1.5000e-004	0.0150	1.1000e-004	0.0151	3.9800e-003	1.0000e-004	4.0700e-003	0.0000	13.8308	13.8308	4.3000e-004	0.0000	13.8415
<b>Total</b>	<b>6.6400e-003</b>	<b>5.3900e-003</b>	<b>0.0508</b>	<b>1.5000e-004</b>	<b>0.0150</b>	<b>1.1000e-004</b>	<b>0.0151</b>	<b>3.9800e-003</b>	<b>1.0000e-004</b>	<b>4.0700e-003</b>	<b>0.0000</b>	<b>13.8308</b>	<b>13.8308</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>13.8415</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0245	0.0242	3.0000e-005		1.6400e-003	1.6400e-003		1.5100e-003	1.5100e-003	0.0000	2.9295	2.9295	9.3000e-004	0.0000	2.9526
<b>Total</b>	<b>2.4400e-003</b>	<b>0.0245</b>	<b>0.0242</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.6400e-003</b>	<b>1.6400e-003</b>	<b>0.0000</b>	<b>1.5100e-003</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>2.9295</b>	<b>2.9295</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>2.9526</b>

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**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.9000e-004	1.7800e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4841	0.4841	2.0000e-005	0.0000	0.4845
<b>Total</b>	<b>2.3000e-004</b>	<b>1.9000e-004</b>	<b>1.7800e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4841</b>	<b>0.4841</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.4845</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	0.0182	0.0246	3.0000e-005		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	2.9295	2.9295	9.3000e-004	0.0000	2.9526
<b>Total</b>	<b>8.0000e-004</b>	<b>0.0182</b>	<b>0.0246</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.2800e-003</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>1.2800e-003</b>	<b>1.2800e-003</b>	<b>0.0000</b>	<b>2.9295</b>	<b>2.9295</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>2.9526</b>

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**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.9000e-004	1.7800e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4841	0.4841	2.0000e-005	0.0000	0.4845
<b>Total</b>	<b>2.3000e-004</b>	<b>1.9000e-004</b>	<b>1.7800e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4841</b>	<b>0.4841</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.4845</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0135	0.1358	0.1470	2.0000e-004		8.5900e-003	8.5900e-003		7.9000e-003	7.9000e-003	0.0000	17.5990	17.5990	5.6900e-003	0.0000	17.7413
<b>Total</b>	<b>0.0135</b>	<b>0.1358</b>	<b>0.1470</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>8.5900e-003</b>	<b>8.5900e-003</b>	<b>0.0000</b>	<b>7.9000e-003</b>	<b>7.9000e-003</b>	<b>0.0000</b>	<b>17.5990</b>	<b>17.5990</b>	<b>5.6900e-003</b>	<b>0.0000</b>	<b>17.7413</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3400e-003	1.0500e-003	0.0100	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.5000e-004	2.0000e-005	8.8000e-004	0.0000	2.8797	2.8797	8.0000e-005	0.0000	2.8818
<b>Total</b>	<b>1.3400e-003</b>	<b>1.0500e-003</b>	<b>0.0100</b>	<b>3.0000e-005</b>	<b>3.2200e-003</b>	<b>2.0000e-005</b>	<b>3.2400e-003</b>	<b>8.5000e-004</b>	<b>2.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>2.8797</b>	<b>2.8797</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.8818</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9000e-003	0.1119	0.1511	2.0000e-004		7.8400e-003	7.8400e-003		7.8400e-003	7.8400e-003	0.0000	17.5990	17.5990	5.6900e-003	0.0000	17.7413
<b>Total</b>	<b>4.9000e-003</b>	<b>0.1119</b>	<b>0.1511</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>7.8400e-003</b>	<b>7.8400e-003</b>	<b>0.0000</b>	<b>7.8400e-003</b>	<b>7.8400e-003</b>	<b>0.0000</b>	<b>17.5990</b>	<b>17.5990</b>	<b>5.6900e-003</b>	<b>0.0000</b>	<b>17.7413</b>



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**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3400e-003	1.0500e-003	0.0100	3.0000e-005	3.2200e-003	2.0000e-005	3.2400e-003	8.5000e-004	2.0000e-005	8.8000e-004	0.0000	2.8797	2.8797	8.0000e-005	0.0000	2.8818
<b>Total</b>	<b>1.3400e-003</b>	<b>1.0500e-003</b>	<b>0.0100</b>	<b>3.0000e-005</b>	<b>3.2200e-003</b>	<b>2.0000e-005</b>	<b>3.2400e-003</b>	<b>8.5000e-004</b>	<b>2.0000e-005</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>2.8797</b>	<b>2.8797</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.8818</b>

**3.5 Tunnel Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1667	1.5591	1.1084	1.8100e-003		0.0885	0.0885		0.0827	0.0827	0.0000	158.0330	158.0330	0.0411	0.0000	159.0607
<b>Total</b>	<b>0.1667</b>	<b>1.5591</b>	<b>1.1084</b>	<b>1.8100e-003</b>		<b>0.0885</b>	<b>0.0885</b>		<b>0.0827</b>	<b>0.0827</b>	<b>0.0000</b>	<b>158.0330</b>	<b>158.0330</b>	<b>0.0411</b>	<b>0.0000</b>	<b>159.0607</b>

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**3.5 Tunnel Excavation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-004	0.0145	3.8400e-003	3.0000e-005	8.0000e-004	7.0000e-005	8.7000e-004	2.3000e-004	6.0000e-005	3.0000e-004	0.0000	3.2400	3.2400	2.6000e-004	0.0000	3.2464
Worker	8.9600e-003	7.0100e-003	0.0670	2.1000e-004	0.0216	1.5000e-004	0.0217	5.7300e-003	1.4000e-004	5.8600e-003	0.0000	19.2983	19.2983	5.6000e-004	0.0000	19.3123
<b>Total</b>	<b>9.4400e-003</b>	<b>0.0215</b>	<b>0.0709</b>	<b>2.4000e-004</b>	<b>0.0224</b>	<b>2.2000e-004</b>	<b>0.0226</b>	<b>5.9600e-003</b>	<b>2.0000e-004</b>	<b>6.1600e-003</b>	<b>0.0000</b>	<b>22.5383</b>	<b>22.5383</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>22.5587</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0422	0.8859	1.1745	1.8100e-003		0.0499	0.0499		0.0499	0.0499	0.0000	158.0328	158.0328	0.0411	0.0000	159.0605
<b>Total</b>	<b>0.0422</b>	<b>0.8859</b>	<b>1.1745</b>	<b>1.8100e-003</b>		<b>0.0499</b>	<b>0.0499</b>		<b>0.0499</b>	<b>0.0499</b>	<b>0.0000</b>	<b>158.0328</b>	<b>158.0328</b>	<b>0.0411</b>	<b>0.0000</b>	<b>159.0605</b>

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**3.5 Tunnel Excavation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.8000e-004	0.0145	3.8400e-003	3.0000e-005	8.0000e-004	7.0000e-005	8.7000e-004	2.3000e-004	6.0000e-005	3.0000e-004	0.0000	3.2400	3.2400	2.6000e-004	0.0000	3.2464
Worker	8.9600e-003	7.0100e-003	0.0670	2.1000e-004	0.0216	1.5000e-004	0.0217	5.7300e-003	1.4000e-004	5.8600e-003	0.0000	19.2983	19.2983	5.6000e-004	0.0000	19.3123
<b>Total</b>	<b>9.4400e-003</b>	<b>0.0215</b>	<b>0.0709</b>	<b>2.4000e-004</b>	<b>0.0224</b>	<b>2.2000e-004</b>	<b>0.0226</b>	<b>5.9600e-003</b>	<b>2.0000e-004</b>	<b>6.1600e-003</b>	<b>0.0000</b>	<b>22.5383</b>	<b>22.5383</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>22.5587</b>

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0672	0.6278	0.4707	7.7000e-004		0.0345	0.0345		0.0323	0.0323	0.0000	67.7368	67.7368	0.0175	0.0000	68.1751
<b>Total</b>	<b>0.0672</b>	<b>0.6278</b>	<b>0.4707</b>	<b>7.7000e-004</b>		<b>0.0345</b>	<b>0.0345</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>67.7368</b>	<b>67.7368</b>	<b>0.0175</b>	<b>0.0000</b>	<b>68.1751</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Annual

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	5.6200e-003	1.4900e-003	1.0000e-005	3.4000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.3758	1.3758	1.1000e-004	0.0000	1.3785
Worker	3.6300e-003	2.7300e-003	0.0269	9.0000e-005	9.2400e-003	6.0000e-005	9.3000e-003	2.4500e-003	6.0000e-005	2.5100e-003	0.0000	7.9926	7.9926	2.2000e-004	0.0000	7.9982
<b>Total</b>	<b>3.8000e-003</b>	<b>8.3500e-003</b>	<b>0.0284</b>	<b>1.0000e-004</b>	<b>9.5800e-003</b>	<b>7.0000e-005</b>	<b>9.6500e-003</b>	<b>2.5500e-003</b>	<b>7.0000e-005</b>	<b>2.6200e-003</b>	<b>0.0000</b>	<b>9.3685</b>	<b>9.3685</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>9.3767</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0181	0.3797	0.5034	7.7000e-004		0.0214	0.0214		0.0214	0.0214	0.0000	67.7367	67.7367	0.0175	0.0000	68.1750
<b>Total</b>	<b>0.0181</b>	<b>0.3797</b>	<b>0.5034</b>	<b>7.7000e-004</b>		<b>0.0214</b>	<b>0.0214</b>		<b>0.0214</b>	<b>0.0214</b>	<b>0.0000</b>	<b>67.7367</b>	<b>67.7367</b>	<b>0.0175</b>	<b>0.0000</b>	<b>68.1750</b>

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**3.5 Tunnel Excavation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	5.6200e-003	1.4900e-003	1.0000e-005	3.4000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	1.3758	1.3758	1.1000e-004	0.0000	1.3785
Worker	3.6300e-003	2.7300e-003	0.0269	9.0000e-005	9.2400e-003	6.0000e-005	9.3000e-003	2.4500e-003	6.0000e-005	2.5100e-003	0.0000	7.9926	7.9926	2.2000e-004	0.0000	7.9982
<b>Total</b>	<b>3.8000e-003</b>	<b>8.3500e-003</b>	<b>0.0284</b>	<b>1.0000e-004</b>	<b>9.5800e-003</b>	<b>7.0000e-005</b>	<b>9.6500e-003</b>	<b>2.5500e-003</b>	<b>7.0000e-005</b>	<b>2.6200e-003</b>	<b>0.0000</b>	<b>9.3685</b>	<b>9.3685</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>9.3767</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pipeline-Trenchless - San Diego County APCD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0125	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0135	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0135					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005
<b>Total</b>	<b>0.0135</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.0125</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Morena Pipeline-Trenchless - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Morena Pipeline-Trenchless - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**Morena Pipeline-Trenchless**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.



Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	25.00
tblConstructionPhase	NumDays	1.00	150.00
tblConstructionPhase	NumDays	1.00	150.00
tblEnergyUse	LightingElect	2.91	0.00

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblProjectCharacteristics	OperationalYear	2018	2022

## Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.7563	25.2202	17.5891	0.0293	0.2044	1.4535	1.6579	0.0542	1.3598	1.4140	0.0000	2,876.9508	2,876.9508	0.7832	0.0000	2,894.2655
2020	2.6461	23.7571	17.8066	0.0311	0.3444	1.3333	1.6777	0.0916	1.2460	1.3376	0.0000	3,011.4255	3,011.4255	0.6954	0.0000	3,028.8094
2021	2.4880	22.3102	17.5809	0.0310	0.3444	1.2144	1.5588	0.0916	1.1339	1.2255	0.0000	2,999.9096	2,999.9096	0.6911	0.0000	3,017.1856
<b>Maximum</b>	<b>2.7563</b>	<b>25.2202</b>	<b>17.8066</b>	<b>0.0311</b>	<b>0.3444</b>	<b>1.4535</b>	<b>1.6777</b>	<b>0.0916</b>	<b>1.3598</b>	<b>1.4140</b>	<b>0.0000</b>	<b>3,011.4255</b>	<b>3,011.4255</b>	<b>0.7832</b>	<b>0.0000</b>	<b>3,028.8094</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.7220	13.3875	18.3901	0.0293	0.2044	0.7515	0.9558	0.0542	0.7514	0.8055	0.0000	2,876.9508	2,876.9508	0.7832	0.0000	2,894.2655
2020	0.7743	13.6338	18.8012	0.0311	0.3444	0.7533	1.0976	0.0916	0.7531	0.8447	0.0000	3,011.4255	3,011.4255	0.6954	0.0000	3,028.8094
2021	0.7656	13.6050	18.7276	0.0310	0.3444	0.7527	1.0970	0.0916	0.7525	0.8441	0.0000	2,999.9096	2,999.9096	0.6911	0.0000	3,017.1856
<b>Maximum</b>	<b>0.7743</b>	<b>13.6338</b>	<b>18.8012</b>	<b>0.0311</b>	<b>0.3444</b>	<b>0.7533</b>	<b>1.0976</b>	<b>0.0916</b>	<b>0.7531</b>	<b>0.8447</b>	<b>0.0000</b>	<b>3,011.4255</b>	<b>3,011.4255</b>	<b>0.7832</b>	<b>0.0000</b>	<b>3,028.8094</b>

## Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	71.33	43.01	-5.55	0.00	0.00	43.58	35.63	0.00	39.65	37.28	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

## Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.51	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.05	46.05	0.00	0.00	46.25

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	4/2/2019	5/6/2019	5	25	
2	Portal Excavation	Site Preparation	5/7/2019	12/2/2019	5	150	
3	Site Restoration	Site Preparation	12/3/2019	6/29/2020	5	150	
4	Tunnel Excavation	Trenching	6/30/2020	3/22/2021	5	190	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7848	21.8308	12.2022	0.0249		0.8732	0.8732		0.8034	0.8034		2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>1.7848</b>	<b>21.8308</b>	<b>12.2022</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.8732</b>	<b>0.8732</b>	<b>0.0000</b>	<b>0.8034</b>	<b>0.8034</b>		<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0326	0.3640	1.0800e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		107.2356	107.2356	3.3300e-003		107.3190
<b>Total</b>	<b>0.0435</b>	<b>0.0326</b>	<b>0.3640</b>	<b>1.0800e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>107.2356</b>	<b>107.2356</b>	<b>3.3300e-003</b>		<b>107.3190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0326	0.3640	1.0800e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		107.2356	107.2356	3.3300e-003		107.3190
<b>Total</b>	<b>0.0435</b>	<b>0.0326</b>	<b>0.3640</b>	<b>1.0800e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>107.2356</b>	<b>107.2356</b>	<b>3.3300e-003</b>		<b>107.3190</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6693	25.1551	16.8612	0.0272		1.4521	1.4521		1.3585	1.3585		2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>2.6693</b>	<b>25.1551</b>	<b>16.8612</b>	<b>0.0272</b>	<b>0.0000</b>	<b>1.4521</b>	<b>1.4521</b>	<b>0.0000</b>	<b>1.3585</b>	<b>1.3585</b>		<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0870	0.0651	0.7279	2.1500e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		214.4712	214.4712	6.6700e-003		214.6379
<b>Total</b>	<b>0.0870</b>	<b>0.0651</b>	<b>0.7279</b>	<b>2.1500e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>214.4712</b>	<b>214.4712</b>	<b>6.6700e-003</b>		<b>214.6379</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0870	0.0651	0.7279	2.1500e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		214.4712	214.4712	6.6700e-003		214.6379
<b>Total</b>	<b>0.0870</b>	<b>0.0651</b>	<b>0.7279</b>	<b>2.1500e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>214.4712</b>	<b>214.4712</b>	<b>6.6700e-003</b>		<b>214.6379</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1560</b>	<b>0.1560</b>	<b>0.0000</b>	<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0217	0.0163	0.1820	5.4000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		53.6178	53.6178	1.6700e-003		53.6595
<b>Total</b>	<b>0.0217</b>	<b>0.0163</b>	<b>0.1820</b>	<b>5.4000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>53.6178</b>	<b>53.6178</b>	<b>1.6700e-003</b>		<b>53.6595</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0217	0.0163	0.1820	5.4000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		53.6178	53.6178	1.6700e-003		53.6595
<b>Total</b>	<b>0.0217</b>	<b>0.0163</b>	<b>0.1820</b>	<b>5.4000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>53.6178</b>	<b>53.6178</b>	<b>1.6700e-003</b>		<b>53.6595</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>



Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

**3.5 Tunnel Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5068	23.4458	16.6677	0.0272		1.3301	1.3301		1.2430	1.2430		2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>2.5068</b>	<b>23.4458</b>	<b>16.6677</b>	<b>0.0272</b>		<b>1.3301</b>	<b>1.3301</b>		<b>1.2430</b>	<b>1.2430</b>		<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Tunnel Excavation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.1393</b>	<b>0.3113</b>	<b>1.1389</b>	<b>3.9000e-003</b>	<b>0.3444</b>	<b>3.2400e-003</b>	<b>0.3476</b>	<b>0.0916</b>	<b>3.0300e-003</b>	<b>0.0946</b>		<b>391.8539</b>	<b>391.8539</b>	<b>0.0140</b>		<b>392.2025</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>		<b>0.7501</b>	<b>0.7501</b>		<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Tunnel Excavation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.1393</b>	<b>0.3113</b>	<b>1.1389</b>	<b>3.9000e-003</b>	<b>0.3444</b>	<b>3.2400e-003</b>	<b>0.3476</b>	<b>0.0916</b>	<b>3.0300e-003</b>	<b>0.0946</b>		<b>391.8539</b>	<b>391.8539</b>	<b>0.0140</b>		<b>392.2025</b>

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3575	22.0277	16.5155	0.0272		1.2118	1.2118		1.1315	1.1315		2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>2.3575</b>	<b>22.0277</b>	<b>16.5155</b>	<b>0.0272</b>		<b>1.2118</b>	<b>1.2118</b>		<b>1.1315</b>	<b>1.1315</b>		<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.1249	0.0869	1.0160	3.2700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		326.1664	326.1664	9.0800e-003		326.3934
<b>Total</b>	<b>0.1306</b>	<b>0.2825</b>	<b>1.0654</b>	<b>3.7700e-003</b>	<b>0.3444</b>	<b>2.6000e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4000e-003</b>	<b>0.0940</b>		<b>380.0127</b>	<b>380.0127</b>	<b>0.0130</b>		<b>380.3386</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>		<b>0.7501</b>	<b>0.7501</b>		<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Tunnel Excavation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.1249	0.0869	1.0160	3.2700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		326.1664	326.1664	9.0800e-003		326.3934
<b>Total</b>	<b>0.1306</b>	<b>0.2825</b>	<b>1.0654</b>	<b>3.7700e-003</b>	<b>0.3444</b>	<b>2.6000e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4000e-003</b>	<b>0.0940</b>		<b>380.0127</b>	<b>380.0127</b>	<b>0.0130</b>		<b>380.3386</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	



Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Unmitigated	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.0000e-004
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>		<b>8.0000e-004</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0684					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>4.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Morena Pipeline-Trenchless - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**Morena Pipeline-Trenchless**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	25.00
tblConstructionPhase	NumDays	1.00	150.00
tblConstructionPhase	NumDays	1.00	150.00
tblEnergyUse	LightingElect	2.91	0.00

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Tunnel Excavation
tblProjectCharacteristics	OperationalYear	2018	2022



## Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.7700	25.2282	17.5349	0.0292	0.2044	1.4535	1.6579	0.0542	1.3598	1.4140	0.0000	2,863.7320	2,863.7320	0.7830	0.0000	2,881.0366
2020	2.6675	23.7682	17.7300	0.0309	0.3444	1.3334	1.6777	0.0916	1.2460	1.3376	0.0000	2,989.1029	2,989.1029	0.6950	0.0000	3,006.4783
2021	2.5085	22.3200	17.5067	0.0308	0.3444	1.2144	1.5588	0.0916	1.1340	1.2256	0.0000	2,978.2901	2,978.2901	0.6907	0.0000	2,995.5582
<b>Maximum</b>	<b>2.7700</b>	<b>25.2282</b>	<b>17.7300</b>	<b>0.0309</b>	<b>0.3444</b>	<b>1.4535</b>	<b>1.6777</b>	<b>0.0916</b>	<b>1.3598</b>	<b>1.4140</b>	<b>0.0000</b>	<b>2,989.1029</b>	<b>2,989.1029</b>	<b>0.7830</b>	<b>0.0000</b>	<b>3,006.4783</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.7357	13.3955	18.3359	0.0292	0.2044	0.7515	0.9558	0.0542	0.7514	0.8055	0.0000	2,863.7320	2,863.7320	0.7830	0.0000	2,881.0366
2020	0.7957	13.6449	18.7245	0.0309	0.3444	0.7533	1.0977	0.0916	0.7531	0.8447	0.0000	2,989.1029	2,989.1029	0.6950	0.0000	3,006.4783
2021	0.7860	13.6147	18.6534	0.0308	0.3444	0.7527	1.0970	0.0916	0.7525	0.8441	0.0000	2,978.2901	2,978.2901	0.6907	0.0000	2,995.5582
<b>Maximum</b>	<b>0.7957</b>	<b>13.6449</b>	<b>18.7245</b>	<b>0.0309</b>	<b>0.3444</b>	<b>0.7533</b>	<b>1.0977</b>	<b>0.0916</b>	<b>0.7531</b>	<b>0.8447</b>	<b>0.0000</b>	<b>2,989.1029</b>	<b>2,989.1029</b>	<b>0.7830</b>	<b>0.0000</b>	<b>3,006.4783</b>

## Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.84	42.99	-5.58	0.00	0.00	43.58	35.63	0.00	39.65	37.28	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

## Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.51	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.05	46.05	0.00	0.00	46.25

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	4/2/2019	5/6/2019	5	25	
2	Portal Excavation	Site Preparation	5/7/2019	12/2/2019	5	150	
3	Site Restoration	Site Preparation	12/3/2019	6/29/2020	5	150	
4	Tunnel Excavation	Trenching	6/30/2020	3/22/2021	5	190	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7848	21.8308	12.2022	0.0249		0.8732	0.8732		0.8034	0.8034		2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>1.7848</b>	<b>21.8308</b>	<b>12.2022</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.8732</b>	<b>0.8732</b>	<b>0.0000</b>	<b>0.8034</b>	<b>0.8034</b>		<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0365	0.3369	1.0100e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		100.6262	100.6262	3.1300e-003		100.7045
<b>Total</b>	<b>0.0503</b>	<b>0.0365</b>	<b>0.3369</b>	<b>1.0100e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>100.6262</b>	<b>100.6262</b>	<b>3.1300e-003</b>		<b>100.7045</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>



Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0365	0.3369	1.0100e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		100.6262	100.6262	3.1300e-003		100.7045
<b>Total</b>	<b>0.0503</b>	<b>0.0365</b>	<b>0.3369</b>	<b>1.0100e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>100.6262</b>	<b>100.6262</b>	<b>3.1300e-003</b>		<b>100.7045</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6693	25.1551	16.8612	0.0272		1.4521	1.4521		1.3585	1.3585		2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>2.6693</b>	<b>25.1551</b>	<b>16.8612</b>	<b>0.0272</b>	<b>0.0000</b>	<b>1.4521</b>	<b>1.4521</b>	<b>0.0000</b>	<b>1.3585</b>	<b>1.3585</b>		<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1007	0.0731	0.6737	2.0200e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		201.2524	201.2524	6.2700e-003		201.4091
<b>Total</b>	<b>0.1007</b>	<b>0.0731</b>	<b>0.6737</b>	<b>2.0200e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>201.2524</b>	<b>201.2524</b>	<b>6.2700e-003</b>		<b>201.4091</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1007	0.0731	0.6737	2.0200e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		201.2524	201.2524	6.2700e-003		201.4091
<b>Total</b>	<b>0.1007</b>	<b>0.0731</b>	<b>0.6737</b>	<b>2.0200e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>201.2524</b>	<b>201.2524</b>	<b>6.2700e-003</b>		<b>201.4091</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1560</b>	<b>0.1560</b>	<b>0.0000</b>	<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0252	0.0183	0.1684	5.0000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		50.3131	50.3131	1.5700e-003		50.3523
<b>Total</b>	<b>0.0252</b>	<b>0.0183</b>	<b>0.1684</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>50.3131</b>	<b>50.3131</b>	<b>1.5700e-003</b>		<b>50.3523</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0252	0.0183	0.1684	5.0000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		50.3131	50.3131	1.5700e-003		50.3523
<b>Total</b>	<b>0.0252</b>	<b>0.0183</b>	<b>0.1684</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>50.3131</b>	<b>50.3131</b>	<b>1.5700e-003</b>		<b>50.3523</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

**3.5 Tunnel Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5068	23.4458	16.6677	0.0272		1.3301	1.3301		1.2430	1.2430		2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>2.5068</b>	<b>23.4458</b>	<b>16.6677</b>	<b>0.0272</b>		<b>1.3301</b>	<b>1.3301</b>		<b>1.2430</b>	<b>1.2430</b>		<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.1607</b>	<b>0.3225</b>	<b>1.0623</b>	<b>3.6700e-003</b>	<b>0.3444</b>	<b>3.2700e-003</b>	<b>0.3476</b>	<b>0.0916</b>	<b>3.0500e-003</b>	<b>0.0946</b>		<b>369.5313</b>	<b>369.5313</b>	<b>0.0136</b>		<b>369.8714</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>		<b>0.7501</b>	<b>0.7501</b>		<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>



Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.1607</b>	<b>0.3225</b>	<b>1.0623</b>	<b>3.6700e-003</b>	<b>0.3444</b>	<b>3.2700e-003</b>	<b>0.3476</b>	<b>0.0916</b>	<b>3.0500e-003</b>	<b>0.0946</b>		<b>369.5313</b>	<b>369.5313</b>	<b>0.0136</b>		<b>369.8714</b>

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3575	22.0277	16.5155	0.0272		1.2118	1.2118		1.1315	1.1315		2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>2.3575</b>	<b>22.0277</b>	<b>16.5155</b>	<b>0.0272</b>		<b>1.2118</b>	<b>1.2118</b>		<b>1.1315</b>	<b>1.1315</b>		<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.1450	0.0975	0.9358	3.0700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		306.0535	306.0535	8.5000e-003		306.2660
<b>Total</b>	<b>0.1511</b>	<b>0.2923</b>	<b>0.9912</b>	<b>3.5600e-003</b>	<b>0.3444</b>	<b>2.6200e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4200e-003</b>	<b>0.0940</b>		<b>358.3932</b>	<b>358.3932</b>	<b>0.0127</b>		<b>358.7111</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>		<b>0.7501</b>	<b>0.7501</b>		<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.1450	0.0975	0.9358	3.0700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		306.0535	306.0535	8.5000e-003		306.2660
<b>Total</b>	<b>0.1511</b>	<b>0.2923</b>	<b>0.9912</b>	<b>3.5600e-003</b>	<b>0.3444</b>	<b>2.6200e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4200e-003</b>	<b>0.0940</b>		<b>358.3932</b>	<b>358.3932</b>	<b>0.0127</b>		<b>358.7111</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

Morena Pipeline-Trenchless - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Unmitigated	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.0000e-004
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>		<b>8.0000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0684					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>4.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators



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Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**Morena Pump Station**  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.07	1000sqft	0.14	6,070.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

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Grading -  
Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No operational trips.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation rate of 4.46 lb/person/day.

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF -

Stationary Sources - Process Boilers -

Stationary Sources - Process Boilers EF -

Stationary Sources - User Defined -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

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Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	90.00
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	PhaseEndDate	4/1/2019	6/24/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/15/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/3/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	10/7/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	7/14/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	6/16/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	10/8/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/4/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/25/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

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tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading

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tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	7.53	0.29
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,403,687.50	10,400.00

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**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1371	1.2442	0.9792	1.9300e-003	0.0160	0.0598	0.0759	4.3000e-003	0.0566	0.0609	0.0000	169.0148	169.0148	0.0357	0.0000	169.9083
2020	0.1264	0.8404	0.6975	1.3200e-003	9.3800e-003	0.0425	0.0519	2.5100e-003	0.0406	0.0431	0.0000	112.4960	112.4960	0.0217	0.0000	113.0380
<b>Maximum</b>	<b>0.1371</b>	<b>1.2442</b>	<b>0.9792</b>	<b>1.9300e-003</b>	<b>0.0160</b>	<b>0.0598</b>	<b>0.0759</b>	<b>4.3000e-003</b>	<b>0.0566</b>	<b>0.0609</b>	<b>0.0000</b>	<b>169.0148</b>	<b>169.0148</b>	<b>0.0357</b>	<b>0.0000</b>	<b>169.9083</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0437	0.7844	1.0236	1.9300e-003	0.0160	0.0381	0.0541	4.3000e-003	0.0380	0.0424	0.0000	169.0147	169.0147	0.0357	0.0000	169.9082
2020	0.0617	0.6049	0.7500	1.3200e-003	9.3800e-003	0.0346	0.0439	2.5100e-003	0.0345	0.0371	0.0000	112.4958	112.4958	0.0217	0.0000	113.0379
<b>Maximum</b>	<b>0.0617</b>	<b>0.7844</b>	<b>1.0236</b>	<b>1.9300e-003</b>	<b>0.0160</b>	<b>0.0381</b>	<b>0.0541</b>	<b>4.3000e-003</b>	<b>0.0380</b>	<b>0.0424</b>	<b>0.0000</b>	<b>169.0147</b>	<b>169.0147</b>	<b>0.0357</b>	<b>0.0000</b>	<b>169.9082</b>



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	59.98	33.36	-5.78	0.00	0.00	29.06	23.28	0.00	25.34	23.68	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-2-2019	7-1-2019	0.5715	0.2898
2	7-2-2019	10-1-2019	0.2966	0.2184
3	10-2-2019	1-1-2020	0.5148	0.3207
4	1-2-2020	4-1-2020	0.4793	0.3231
5	4-2-2020	7-1-2020	0.4463	0.3115
6	7-2-2020	9-30-2020	0.0363	0.0280
		Highest	0.5715	0.3231

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2020	6/24/2020	5	7	
2	Building Construction	Building Construction	10/8/2019	6/15/2020	5	180	
3	Demolition	Demolition	4/2/2019	6/3/2019	5	45	
4	Grading	Grading	6/4/2019	10/7/2019	5	90	
5	Paving	Paving	6/25/2020	7/14/2020	5	14	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,105; Non-Residential Outdoor: 3,035; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
	Cranes	1	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.8900e-003	6.4100e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	0.8936	0.8936	7.0000e-005	0.0000	0.8954
<b>Total</b>	<b>0.0290</b>	<b>5.8900e-003</b>	<b>6.4100e-003</b>	<b>1.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>0.8936</b>	<b>0.8936</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.8954</b>

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**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0507	0.0507	0.0000	0.0000	0.0508
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0507</b>	<b>0.0507</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0508</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	4.7500e-003	6.4100e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	0.8936	0.8936	7.0000e-005	0.0000	0.8954
<b>Total</b>	<b>0.0283</b>	<b>4.7500e-003</b>	<b>6.4100e-003</b>	<b>1.0000e-005</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.8936</b>	<b>0.8936</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.8954</b>

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**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0507	0.0507	0.0000	0.0000	0.0508
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0507</b>	<b>0.0507</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0508</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	0.4307	0.3193	5.7000e-004		0.0232	0.0232		0.0222	0.0222	0.0000	48.5536	48.5536	9.9100e-003	0.0000	48.8012
<b>Total</b>	<b>0.0502</b>	<b>0.4307</b>	<b>0.3193</b>	<b>5.7000e-004</b>		<b>0.0232</b>	<b>0.0232</b>		<b>0.0222</b>	<b>0.0222</b>	<b>0.0000</b>	<b>48.5536</b>	<b>48.5536</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>48.8012</b>

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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9000e-004	7.6600e-003	2.0600e-003	2.0000e-005	4.0000e-004	5.0000e-005	4.6000e-004	1.2000e-004	5.0000e-005	1.7000e-004	0.0000	1.6206	1.6206	1.3000e-004	0.0000	1.6239
Worker	1.9200e-003	1.4800e-003	0.0143	4.0000e-005	3.9100e-003	3.0000e-005	3.9400e-003	1.0400e-003	3.0000e-005	1.0700e-003	0.0000	3.6527	3.6527	1.2000e-004	0.0000	3.6556
<b>Total</b>	<b>2.2100e-003</b>	<b>9.1400e-003</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.3100e-003</b>	<b>8.0000e-005</b>	<b>4.4000e-003</b>	<b>1.1600e-003</b>	<b>8.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>5.2733</b>	<b>5.2733</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>5.2795</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.2789	0.3336	5.7000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	48.5535	48.5535	9.9100e-003	0.0000	48.8012
<b>Total</b>	<b>0.0138</b>	<b>0.2789</b>	<b>0.3336</b>	<b>5.7000e-004</b>		<b>0.0164</b>	<b>0.0164</b>		<b>0.0164</b>	<b>0.0164</b>	<b>0.0000</b>	<b>48.5535</b>	<b>48.5535</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>48.8012</b>



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**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9000e-004	7.6600e-003	2.0600e-003	2.0000e-005	4.0000e-004	5.0000e-005	4.6000e-004	1.2000e-004	5.0000e-005	1.7000e-004	0.0000	1.6206	1.6206	1.3000e-004	0.0000	1.6239
Worker	1.9200e-003	1.4800e-003	0.0143	4.0000e-005	3.9100e-003	3.0000e-005	3.9400e-003	1.0400e-003	3.0000e-005	1.0700e-003	0.0000	3.6527	3.6527	1.2000e-004	0.0000	3.6556
<b>Total</b>	<b>2.2100e-003</b>	<b>9.1400e-003</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.3100e-003</b>	<b>8.0000e-005</b>	<b>4.4000e-003</b>	<b>1.1600e-003</b>	<b>8.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>5.2733</b>	<b>5.2733</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>5.2795</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0882	0.7688	0.6075	1.1100e-003		0.0394	0.0394		0.0377	0.0377	0.0000	93.6891	93.6891	0.0189	0.0000	94.1609
<b>Total</b>	<b>0.0882</b>	<b>0.7688</b>	<b>0.6075</b>	<b>1.1100e-003</b>		<b>0.0394</b>	<b>0.0394</b>		<b>0.0377</b>	<b>0.0377</b>	<b>0.0000</b>	<b>93.6891</b>	<b>93.6891</b>	<b>0.0189</b>	<b>0.0000</b>	<b>94.1609</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0136	3.6000e-003	3.0000e-005	7.9000e-004	7.0000e-005	8.6000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.1400	3.1400	2.4000e-004	0.0000	3.1460
Worker	3.5100e-003	2.6000e-003	0.0255	8.0000e-005	7.6300e-003	5.0000e-005	7.6900e-003	2.0300e-003	5.0000e-005	2.0800e-003	0.0000	6.9008	6.9008	2.1000e-004	0.0000	6.9060
<b>Total</b>	<b>3.9600e-003</b>	<b>0.0162</b>	<b>0.0291</b>	<b>1.1000e-004</b>	<b>8.4200e-003</b>	<b>1.2000e-004</b>	<b>8.5500e-003</b>	<b>2.2600e-003</b>	<b>1.1000e-004</b>	<b>2.3700e-003</b>	<b>0.0000</b>	<b>10.0408</b>	<b>10.0408</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>10.0520</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0270	0.5441	0.6508	1.1100e-003		0.0320	0.0320		0.0320	0.0320	0.0000	93.6890	93.6890	0.0189	0.0000	94.1607
<b>Total</b>	<b>0.0270</b>	<b>0.5441</b>	<b>0.6508</b>	<b>1.1100e-003</b>		<b>0.0320</b>	<b>0.0320</b>		<b>0.0320</b>	<b>0.0320</b>	<b>0.0000</b>	<b>93.6890</b>	<b>93.6890</b>	<b>0.0189</b>	<b>0.0000</b>	<b>94.1607</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0136	3.6000e-003	3.0000e-005	7.9000e-004	7.0000e-005	8.6000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.1400	3.1400	2.4000e-004	0.0000	3.1460
Worker	3.5100e-003	2.6000e-003	0.0255	8.0000e-005	7.6300e-003	5.0000e-005	7.6900e-003	2.0300e-003	5.0000e-005	2.0800e-003	0.0000	6.9008	6.9008	2.1000e-004	0.0000	6.9060
<b>Total</b>	<b>3.9600e-003</b>	<b>0.0162</b>	<b>0.0291</b>	<b>1.1000e-004</b>	<b>8.4200e-003</b>	<b>1.2000e-004</b>	<b>8.5500e-003</b>	<b>2.2600e-003</b>	<b>1.1000e-004</b>	<b>2.3700e-003</b>	<b>0.0000</b>	<b>10.0408</b>	<b>10.0408</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>10.0520</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0451	0.4340	0.2648	4.8000e-004		0.0221	0.0221		0.0209	0.0209	0.0000	42.3268	42.3268	9.9000e-003	0.0000	42.5742
<b>Total</b>	<b>0.0451</b>	<b>0.4340</b>	<b>0.2648</b>	<b>4.8000e-004</b>		<b>0.0221</b>	<b>0.0221</b>		<b>0.0209</b>	<b>0.0209</b>	<b>0.0000</b>	<b>42.3268</b>	<b>42.3268</b>	<b>9.9000e-003</b>	<b>0.0000</b>	<b>42.5742</b>

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**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.5000e-004	9.2200e-003	3.0000e-005	2.5300e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.3578	2.3578	8.0000e-005	0.0000	2.3597
<b>Total</b>	<b>1.2400e-003</b>	<b>9.5000e-004</b>	<b>9.2200e-003</b>	<b>3.0000e-005</b>	<b>2.5300e-003</b>	<b>2.0000e-005</b>	<b>2.5400e-003</b>	<b>6.7000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.3578</b>	<b>2.3578</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.3597</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0104	0.2108	0.2774	4.8000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	42.3267	42.3267	9.9000e-003	0.0000	42.5741
<b>Total</b>	<b>0.0104</b>	<b>0.2108</b>	<b>0.2774</b>	<b>4.8000e-004</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>42.3267</b>	<b>42.3267</b>	<b>9.9000e-003</b>	<b>0.0000</b>	<b>42.5741</b>

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**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.5000e-004	9.2200e-003	3.0000e-005	2.5300e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.3578	2.3578	8.0000e-005	0.0000	2.3597
<b>Total</b>	<b>1.2400e-003</b>	<b>9.5000e-004</b>	<b>9.2200e-003</b>	<b>3.0000e-005</b>	<b>2.5300e-003</b>	<b>2.0000e-005</b>	<b>2.5400e-003</b>	<b>6.7000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.3578</b>	<b>2.3578</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.3597</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0337	0.3059	0.3352	5.8000e-004		0.0141	0.0141		0.0132	0.0132	0.0000	49.5224	49.5224	0.0140	0.0000	49.8731
<b>Total</b>	<b>0.0337</b>	<b>0.3059</b>	<b>0.3352</b>	<b>5.8000e-004</b>		<b>0.0141</b>	<b>0.0141</b>		<b>0.0132</b>	<b>0.0132</b>	<b>0.0000</b>	<b>49.5224</b>	<b>49.5224</b>	<b>0.0140</b>	<b>0.0000</b>	<b>49.8731</b>

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**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7600e-003	0.0613	0.0134	1.6000e-004	3.4200e-003	2.3000e-004	3.6500e-003	9.4000e-004	2.2000e-004	1.1600e-003	0.0000	15.5919	15.5919	1.4100e-003	0.0000	15.6272
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8400e-003	2.1800e-003	0.0211	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3892	5.3892	1.7000e-004	0.0000	5.3935
<b>Total</b>	<b>4.6000e-003</b>	<b>0.0635</b>	<b>0.0344</b>	<b>2.2000e-004</b>	<b>9.1900e-003</b>	<b>2.7000e-004</b>	<b>9.4700e-003</b>	<b>2.4700e-003</b>	<b>2.6000e-004</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>20.9811</b>	<b>20.9811</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>21.0207</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.2211	0.3526	5.8000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	49.5223	49.5223	0.0140	0.0000	49.8731
<b>Total</b>	<b>0.0114</b>	<b>0.2211</b>	<b>0.3526</b>	<b>5.8000e-004</b>		<b>0.0107</b>	<b>0.0107</b>		<b>0.0107</b>	<b>0.0107</b>	<b>0.0000</b>	<b>49.5223</b>	<b>49.5223</b>	<b>0.0140</b>	<b>0.0000</b>	<b>49.8731</b>

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**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7600e-003	0.0613	0.0134	1.6000e-004	3.4200e-003	2.3000e-004	3.6500e-003	9.4000e-004	2.2000e-004	1.1600e-003	0.0000	15.5919	15.5919	1.4100e-003	0.0000	15.6272
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8400e-003	2.1800e-003	0.0211	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3892	5.3892	1.7000e-004	0.0000	5.3935
<b>Total</b>	<b>4.6000e-003</b>	<b>0.0635</b>	<b>0.0344</b>	<b>2.2000e-004</b>	<b>9.1900e-003</b>	<b>2.7000e-004</b>	<b>9.4700e-003</b>	<b>2.4700e-003</b>	<b>2.6000e-004</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>20.9811</b>	<b>20.9811</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>21.0207</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7500e-003	0.0492	0.0513	8.0000e-005		2.6300e-003	2.6300e-003		2.4200e-003	2.4200e-003	0.0000	7.0099	7.0099	2.2700e-003	0.0000	7.0666
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.7500e-003</b>	<b>0.0492</b>	<b>0.0513</b>	<b>8.0000e-005</b>		<b>2.6300e-003</b>	<b>2.6300e-003</b>		<b>2.4200e-003</b>	<b>2.4200e-003</b>	<b>0.0000</b>	<b>7.0099</b>	<b>7.0099</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>7.0666</b>

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**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.1000e-004	3.0000e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8119	0.8119	2.0000e-005	0.0000	0.8125
<b>Total</b>	<b>4.1000e-004</b>	<b>3.1000e-004</b>	<b>3.0000e-003</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.8119</b>	<b>0.8119</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8125</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9600e-003	0.0395	0.0605	8.0000e-005		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	7.0099	7.0099	2.2700e-003	0.0000	7.0666
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.9600e-003</b>	<b>0.0395</b>	<b>0.0605</b>	<b>8.0000e-005</b>		<b>2.1300e-003</b>	<b>2.1300e-003</b>		<b>2.1300e-003</b>	<b>2.1300e-003</b>	<b>0.0000</b>	<b>7.0099</b>	<b>7.0099</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>7.0666</b>



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**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.1000e-004	3.0000e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8119	0.8119	2.0000e-005	0.0000	0.8125
<b>Total</b>	<b>4.1000e-004</b>	<b>3.1000e-004</b>	<b>3.0000e-003</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.8119</b>	<b>0.8119</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8125</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Unmitigated	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Morena Pump Station - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>



Morena Pump Station - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

Morena Pump Station - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Morena Pump Station - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pump Station - San Diego County APCD Air District, Summer

**Morena Pump Station**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.07	1000sqft	0.14	6,070.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Morena Pump Station - San Diego County APCD Air District, Summer

Grading -  
Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No operational trips.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation rate of 4.46 lb/person/day.

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF -

Stationary Sources - Process Boilers -

Stationary Sources - Process Boilers EF -

Stationary Sources - User Defined -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Morena Pump Station - San Diego County APCD Air District, Summer

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Morena Pump Station - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	90.00
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	PhaseEndDate	4/1/2019	6/24/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/15/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/3/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	10/7/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	7/14/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	6/16/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	10/8/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/4/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/25/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

Morena Pump Station - San Diego County APCD Air District, Summer

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading



## Morena Pump Station - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	7.53	0.29
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,403,687.50	10,400.00

Morena Pump Station - San Diego County APCD Air District, Summer

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.0607	19.3276	12.2006	0.0227	0.2091	0.9848	1.0998	0.0561	0.9272	0.9577	0.0000	2,195.4840	2,195.4840	0.4887	0.0000	2,207.7014
2020	8.2879	13.1865	10.7210	0.0206	0.1450	0.6638	0.8088	0.0388	0.6354	0.6742	0.0000	1,929.3539	1,929.3539	0.3610	0.0000	1,938.3032
<b>Maximum</b>	<b>8.2879</b>	<b>19.3276</b>	<b>12.2006</b>	<b>0.0227</b>	<b>0.2091</b>	<b>0.9848</b>	<b>1.0998</b>	<b>0.0561</b>	<b>0.9272</b>	<b>0.9577</b>	<b>0.0000</b>	<b>2,195.4840</b>	<b>2,195.4840</b>	<b>0.4887</b>	<b>0.0000</b>	<b>2,207.7014</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.5260	9.4366	12.7600	0.0227	0.2091	0.5397	0.6847	0.0561	0.5396	0.5783	0.0000	2,195.4840	2,195.4840	0.4887	0.0000	2,207.7014
2020	8.1052	9.4098	11.4486	0.0206	0.1450	0.5391	0.6841	0.0388	0.5390	0.5777	0.0000	1,929.3539	1,929.3539	0.3610	0.0000	1,938.3032
<b>Maximum</b>	<b>8.1052</b>	<b>9.4366</b>	<b>12.7600</b>	<b>0.0227</b>	<b>0.2091</b>	<b>0.5397</b>	<b>0.6847</b>	<b>0.0561</b>	<b>0.5396</b>	<b>0.5783</b>	<b>0.0000</b>	<b>2,195.4840</b>	<b>2,195.4840</b>	<b>0.4887</b>	<b>0.0000</b>	<b>2,207.7014</b>

## Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.60	42.04	-5.61	0.00	0.00	34.56	28.29	0.00	30.98	29.16	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pump Station - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

## Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2020	6/24/2020	5	7	
2	Building Construction	Building Construction	10/8/2019	6/15/2020	5	180	
3	Demolition	Demolition	4/2/2019	6/3/2019	5	45	
4	Grading	Grading	6/4/2019	10/7/2019	5	90	
5	Paving	Paving	6/25/2020	7/14/2020	5	14	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,105; Non-Residential Outdoor: 3,035; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Morena Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
	Cranes	1	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Morena Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.2806</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.3400e-003	4.9400e-003	0.0567	1.7000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		16.8549	16.8549	5.0000e-004		16.8675
<b>Total</b>	<b>7.3400e-003</b>	<b>4.9400e-003</b>	<b>0.0567</b>	<b>1.7000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>16.8549</b>	<b>16.8549</b>	<b>5.0000e-004</b>		<b>16.8675</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.0978</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>



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**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.3400e-003	4.9400e-003	0.0567	1.7000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		16.8549	16.8549	5.0000e-004		16.8675
<b>Total</b>	<b>7.3400e-003</b>	<b>4.9400e-003</b>	<b>0.0567</b>	<b>1.7000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>16.8549</b>	<b>16.8549</b>	<b>5.0000e-004</b>		<b>16.8675</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6468	14.1218	10.4681	0.0187		0.7603	0.7603		0.7277	0.7277		1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>1.6468</b>	<b>14.1218</b>	<b>10.4681</b>	<b>0.0187</b>		<b>0.7603</b>	<b>0.7603</b>		<b>0.7277</b>	<b>0.7277</b>		<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4831	12.9214	10.2100	0.0187		0.6618	0.6618		0.6335	0.6335		1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>1.4831</b>	<b>12.9214</b>	<b>10.2100</b>	<b>0.0187</b>		<b>0.6618</b>	<b>0.6618</b>		<b>0.6335</b>	<b>0.6335</b>		<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0057	19.2892	11.7675	0.0215		0.9840	0.9840		0.9265	0.9265		2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>2.0057</b>	<b>19.2892</b>	<b>11.7675</b>	<b>0.0215</b>		<b>0.9840</b>	<b>0.9840</b>		<b>0.9265</b>	<b>0.9265</b>		<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4620	9.3691	12.3268	0.0215		0.4728	0.4728		0.4728	0.4728	0.0000	2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>0.4620</b>	<b>9.3691</b>	<b>12.3268</b>	<b>0.0215</b>		<b>0.4728</b>	<b>0.4728</b>		<b>0.4728</b>	<b>0.4728</b>	<b>0.0000</b>	<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7488	6.7973	7.4490	0.0128		0.3140	0.3140		0.2933	0.2933		1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.7488</b>	<b>6.7973</b>	<b>7.4490</b>	<b>0.0128</b>		<b>0.3140</b>	<b>0.3140</b>		<b>0.2933</b>	<b>0.2933</b>		<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0386	1.3350	0.2882	3.5300e-003	0.0777	5.0400e-003	0.0827	0.0213	4.8200e-003	0.0261		384.6545	384.6545	0.0340		385.5055
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1014</b>	<b>1.3788</b>	<b>0.7832</b>	<b>4.9300e-003</b>	<b>0.2091</b>	<b>5.9800e-003</b>	<b>0.2151</b>	<b>0.0561</b>	<b>5.6800e-003</b>	<b>0.0618</b>		<b>523.8865</b>	<b>523.8865</b>	<b>0.0385</b>		<b>524.8486</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2541	4.9134	7.8360	0.0128		0.2372	0.2372		0.2372	0.2372	0.0000	1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.2541</b>	<b>4.9134</b>	<b>7.8360</b>	<b>0.0128</b>		<b>0.2372</b>	<b>0.2372</b>		<b>0.2372</b>	<b>0.2372</b>	<b>0.0000</b>	<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>



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**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0386	1.3350	0.2882	3.5300e-003	0.0777	5.0400e-003	0.0827	0.0213	4.8200e-003	0.0261		384.6545	384.6545	0.0340		385.5055
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1014</b>	<b>1.3788</b>	<b>0.7832</b>	<b>4.9300e-003</b>	<b>0.2091</b>	<b>5.9800e-003</b>	<b>0.2151</b>	<b>0.0561</b>	<b>5.6800e-003</b>	<b>0.0618</b>		<b>523.8865</b>	<b>523.8865</b>	<b>0.0385</b>		<b>524.8486</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463		1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6783</b>	<b>7.0328</b>	<b>7.3260</b>	<b>0.0114</b>		<b>0.3764</b>	<b>0.3764</b>		<b>0.3463</b>	<b>0.3463</b>		<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0587</b>	<b>0.0396</b>	<b>0.4535</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>134.8395</b>	<b>134.8395</b>	<b>4.0300e-003</b>		<b>134.9402</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	5.6476	8.6478	0.0114		0.3047	0.3047		0.3047	0.3047	0.0000	1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>5.6476</b>	<b>8.6478</b>	<b>0.0114</b>		<b>0.3047</b>	<b>0.3047</b>		<b>0.3047</b>	<b>0.3047</b>	<b>0.0000</b>	<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0587</b>	<b>0.0396</b>	<b>0.4535</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>134.8395</b>	<b>134.8395</b>	<b>4.0300e-003</b>		<b>134.9402</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Morena Pump Station - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

Morena Pump Station - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Unmitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators



Morena Pump Station - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pump Station - San Diego County APCD Air District, Winter

**Morena Pump Station**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.07	1000sqft	0.14	6,070.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Morena Pump Station - San Diego County APCD Air District, Winter

Grading -  
Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No operational trips.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation rate of 4.46 lb/person/day.

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF -

Stationary Sources - Process Boilers -

Stationary Sources - Process Boilers EF -

Stationary Sources - User Defined -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Morena Pump Station - San Diego County APCD Air District, Winter

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Morena Pump Station - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	90.00
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	PhaseEndDate	4/1/2019	6/24/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/15/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/3/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	10/7/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	7/14/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	6/16/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	10/8/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/4/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/25/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

Morena Pump Station - San Diego County APCD Air District, Winter

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading

## Morena Pump Station - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	7.53	0.29
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,403,687.50	10,400.00

Morena Pump Station - San Diego County APCD Air District, Winter

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.0679	19.3323	12.1768	0.0226	0.2091	0.9848	1.0998	0.0561	0.9272	0.9577	0.0000	2,188.0239	2,188.0239	0.4885	0.0000	2,200.2363
2020	8.2889	13.1911	10.7013	0.0205	0.1450	0.6639	0.8088	0.0388	0.6355	0.6742	0.0000	1,919.5799	1,919.5799	0.3608	0.0000	1,928.5306
<b>Maximum</b>	<b>8.2889</b>	<b>19.3323</b>	<b>12.1768</b>	<b>0.0226</b>	<b>0.2091</b>	<b>0.9848</b>	<b>1.0998</b>	<b>0.0561</b>	<b>0.9272</b>	<b>0.9577</b>	<b>0.0000</b>	<b>2,188.0239</b>	<b>2,188.0239</b>	<b>0.4885</b>	<b>0.0000</b>	<b>2,200.2363</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.5346	9.4422	12.7362	0.0226	0.2091	0.5397	0.6847	0.0561	0.5396	0.5784	0.0000	2,188.0239	2,188.0239	0.4885	0.0000	2,200.2363
2020	8.1062	9.4145	11.4289	0.0205	0.1450	0.5391	0.6841	0.0388	0.5390	0.5777	0.0000	1,919.5799	1,919.5799	0.3608	0.0000	1,928.5306
<b>Maximum</b>	<b>8.1062</b>	<b>9.4422</b>	<b>12.7362</b>	<b>0.0226</b>	<b>0.2091</b>	<b>0.5397</b>	<b>0.6847</b>	<b>0.0561</b>	<b>0.5396</b>	<b>0.5784</b>	<b>0.0000</b>	<b>2,188.0239</b>	<b>2,188.0239</b>	<b>0.4885</b>	<b>0.0000</b>	<b>2,200.2363</b>



## Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.57	42.02	-5.63	0.00	0.00	34.56	28.28	0.00	30.98	29.16	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pump Station - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2020	6/24/2020	5	7	
2	Building Construction	Building Construction	10/8/2019	6/15/2020	5	180	
3	Demolition	Demolition	4/2/2019	6/3/2019	5	45	
4	Grading	Grading	6/4/2019	10/7/2019	5	90	
5	Paving	Paving	6/25/2020	7/14/2020	5	14	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,105; Non-Residential Outdoor: 3,035; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Morena Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
	Cranes	1	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Morena Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.2806</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.3100e-003	5.5500e-003	0.0535	1.6000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		15.8226	15.8226	4.8000e-004		15.8346
<b>Total</b>	<b>8.3100e-003</b>	<b>5.5500e-003</b>	<b>0.0535</b>	<b>1.6000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>15.8226</b>	<b>15.8226</b>	<b>4.8000e-004</b>		<b>15.8346</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.0978</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.3100e-003	5.5500e-003	0.0535	1.6000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		15.8226	15.8226	4.8000e-004		15.8346
<b>Total</b>	<b>8.3100e-003</b>	<b>5.5500e-003</b>	<b>0.0535</b>	<b>1.6000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>15.8226</b>	<b>15.8226</b>	<b>4.8000e-004</b>		<b>15.8346</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6468	14.1218	10.4681	0.0187		0.7603	0.7603		0.7277	0.7277		1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>1.6468</b>	<b>14.1218</b>	<b>10.4681</b>	<b>0.0187</b>		<b>0.7603</b>	<b>0.7603</b>		<b>0.7277</b>	<b>0.7277</b>		<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>



Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4831	12.9214	10.2100	0.0187		0.6618	0.6618		0.6335	0.6335		1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>1.4831</b>	<b>12.9214</b>	<b>10.2100</b>	<b>0.0187</b>		<b>0.6618</b>	<b>0.6618</b>		<b>0.6335</b>	<b>0.6335</b>		<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0057	19.2892	11.7675	0.0215		0.9840	0.9840		0.9265	0.9265		2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>2.0057</b>	<b>19.2892</b>	<b>11.7675</b>	<b>0.0215</b>		<b>0.9840</b>	<b>0.9840</b>		<b>0.9265</b>	<b>0.9265</b>		<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4620	9.3691	12.3268	0.0215		0.4728	0.4728		0.4728	0.4728	0.0000	2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>0.4620</b>	<b>9.3691</b>	<b>12.3268</b>	<b>0.0215</b>		<b>0.4728</b>	<b>0.4728</b>		<b>0.4728</b>	<b>0.4728</b>	<b>0.0000</b>	<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7488	6.7973	7.4490	0.0128		0.3140	0.3140		0.2933	0.2933		1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.7488</b>	<b>6.7973</b>	<b>7.4490</b>	<b>0.0128</b>		<b>0.3140</b>	<b>0.3140</b>		<b>0.2933</b>	<b>0.2933</b>		<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0397	1.3487	0.3088	3.4700e-003	0.0777	5.1600e-003	0.0828	0.0213	4.9300e-003	0.0262		378.1817	378.1817	0.0353		379.0635
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1107</b>	<b>1.3979</b>	<b>0.7767</b>	<b>4.7800e-003</b>	<b>0.2091</b>	<b>6.1000e-003</b>	<b>0.2152</b>	<b>0.0561</b>	<b>5.7900e-003</b>	<b>0.0620</b>		<b>508.8879</b>	<b>508.8879</b>	<b>0.0395</b>		<b>509.8752</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2541	4.9134	7.8360	0.0128		0.2372	0.2372		0.2372	0.2372	0.0000	1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.2541</b>	<b>4.9134</b>	<b>7.8360</b>	<b>0.0128</b>		<b>0.2372</b>	<b>0.2372</b>		<b>0.2372</b>	<b>0.2372</b>	<b>0.0000</b>	<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0397	1.3487	0.3088	3.4700e-003	0.0777	5.1600e-003	0.0828	0.0213	4.9300e-003	0.0262		378.1817	378.1817	0.0353		379.0635
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1107</b>	<b>1.3979</b>	<b>0.7767</b>	<b>4.7800e-003</b>	<b>0.2091</b>	<b>6.1000e-003</b>	<b>0.2152</b>	<b>0.0561</b>	<b>5.7900e-003</b>	<b>0.0620</b>		<b>508.8879</b>	<b>508.8879</b>	<b>0.0395</b>		<b>509.8752</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463		1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6783</b>	<b>7.0328</b>	<b>7.3260</b>	<b>0.0114</b>		<b>0.3764</b>	<b>0.3764</b>		<b>0.3463</b>	<b>0.3463</b>		<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0665</b>	<b>0.0444</b>	<b>0.4276</b>	<b>1.2700e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>126.5811</b>	<b>126.5811</b>	<b>3.8100e-003</b>		<b>126.6764</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	5.6476	8.6478	0.0114		0.3047	0.3047		0.3047	0.3047	0.0000	1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>5.6476</b>	<b>8.6478</b>	<b>0.0114</b>		<b>0.3047</b>	<b>0.3047</b>		<b>0.3047</b>	<b>0.3047</b>	<b>0.0000</b>	<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>



Morena Pump Station - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0665</b>	<b>0.0444</b>	<b>0.4276</b>	<b>1.2700e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>126.5811</b>	<b>126.5811</b>	<b>3.8100e-003</b>		<b>126.6764</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Morena Pump Station - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Unmitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Morena Pump Station - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF IPS - San Diego County APCD Air District, Annual

**NCPWF IPS**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.70	1000sqft	0.15	6,700.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**



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Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading - See Section 7.2.1 for Construction Details.

Demolition - No demolition of structures anticipated.

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No mobile source emissions.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	NumDays	100.00	260.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	97.00
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	PhaseEndDate	1/6/2019	7/7/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	6/17/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	2/4/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	10/7/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/20/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	2/5/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	0.30
tblGrading	MaterialImported	0.00	943.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29

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tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	8.31	0.29
tblTripsAndVMT	HaulingTripNumber	118.00	63.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	100.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00

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tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,549,375.00	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-7-2019	4-6-2019	0.6405	0.4921
2	4-7-2019	7-6-2019	0.5789	0.4506
3	7-7-2019	10-6-2019	0.6442	0.4735
4	10-7-2019	1-6-2020	0.6432	0.4750
5	1-7-2020	4-6-2020	0.5838	0.4524
6	4-7-2020	7-6-2020	0.5667	0.4433
7	7-7-2020	9-30-2020	0.2885	0.2163
		Highest	0.6442	0.4921

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1066</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1066</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**



## NCPWF IPS - San Diego County APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/18/2020	7/7/2020	5	14	
2	Building Construction	Building Construction	6/20/2019	6/17/2020	5	260	
3	Demolition	Demolition	1/7/2019	2/4/2019	5	21	
4	Grading	Grading	2/5/2019	6/19/2019	5	97	
5	Paving	Paving	6/18/2020	10/7/2020	5	80	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0.3**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,050; Non-Residential Outdoor: 3,350; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## NCPWF IPS - San Diego County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Rubber Tired Dozers	1	1.00	247	0.40
	Cranes	2	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

NCPWF IPS - San Diego County APCD Air District, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	100.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	10.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0311					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-003	0.0118	0.0128	2.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907
<b>Total</b>	<b>0.0328</b>	<b>0.0118</b>	<b>0.0128</b>	<b>2.0000e-005</b>		<b>7.8000e-004</b>	<b>7.8000e-004</b>		<b>7.8000e-004</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>1.7873</b>	<b>1.7873</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.7907</b>

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**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1200e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3045	0.3045	1.0000e-005	0.0000	0.3047
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3045</b>	<b>0.3045</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3047</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0311					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	9.5000e-003	0.0128	2.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907
<b>Total</b>	<b>0.0315</b>	<b>9.5000e-003</b>	<b>0.0128</b>	<b>2.0000e-005</b>		<b>6.7000e-004</b>	<b>6.7000e-004</b>		<b>6.7000e-004</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>1.7873</b>	<b>1.7873</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.7907</b>

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**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1200e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3045	0.3045	1.0000e-005	0.0000	0.3047
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3045</b>	<b>0.3045</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3047</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1312	1.1310	0.8527	1.4600e-003		0.0644	0.0644		0.0612	0.0612	0.0000	125.0281	125.0281	0.0271	0.0000	125.7062
<b>Total</b>	<b>0.1312</b>	<b>1.1310</b>	<b>0.8527</b>	<b>1.4600e-003</b>		<b>0.0644</b>	<b>0.0644</b>		<b>0.0612</b>	<b>0.0612</b>	<b>0.0000</b>	<b>125.0281</b>	<b>125.0281</b>	<b>0.0271</b>	<b>0.0000</b>	<b>125.7062</b>

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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9500e-003	0.0523	0.0141	1.1000e-004	2.7700e-003	3.6000e-004	3.1300e-003	8.0000e-004	3.5000e-004	1.1500e-003	0.0000	11.0788	11.0788	8.9000e-004	0.0000	11.1010
Worker	0.0274	0.0210	0.2034	5.8000e-004	0.0557	4.1000e-004	0.0561	0.0148	3.7000e-004	0.0152	0.0000	52.0205	52.0205	1.6700e-003	0.0000	52.0623
<b>Total</b>	<b>0.0294</b>	<b>0.0734</b>	<b>0.2174</b>	<b>6.9000e-004</b>	<b>0.0585</b>	<b>7.7000e-004</b>	<b>0.0593</b>	<b>0.0156</b>	<b>7.2000e-004</b>	<b>0.0163</b>	<b>0.0000</b>	<b>63.0993</b>	<b>63.0993</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>63.1633</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0607	0.8406	0.9002	1.4600e-003		0.0517	0.0517		0.0501	0.0501	0.0000	125.0279	125.0279	0.0271	0.0000	125.7061
<b>Total</b>	<b>0.0607</b>	<b>0.8406</b>	<b>0.9002</b>	<b>1.4600e-003</b>		<b>0.0517</b>	<b>0.0517</b>		<b>0.0501</b>	<b>0.0501</b>	<b>0.0000</b>	<b>125.0279</b>	<b>125.0279</b>	<b>0.0271</b>	<b>0.0000</b>	<b>125.7061</b>

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**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9500e-003	0.0523	0.0141	1.1000e-004	2.7700e-003	3.6000e-004	3.1300e-003	8.0000e-004	3.5000e-004	1.1500e-003	0.0000	11.0788	11.0788	8.9000e-004	0.0000	11.1010
Worker	0.0274	0.0210	0.2034	5.8000e-004	0.0557	4.1000e-004	0.0561	0.0148	3.7000e-004	0.0152	0.0000	52.0205	52.0205	1.6700e-003	0.0000	52.0623
<b>Total</b>	<b>0.0294</b>	<b>0.0734</b>	<b>0.2174</b>	<b>6.9000e-004</b>	<b>0.0585</b>	<b>7.7000e-004</b>	<b>0.0593</b>	<b>0.0156</b>	<b>7.2000e-004</b>	<b>0.0163</b>	<b>0.0000</b>	<b>63.0993</b>	<b>63.0993</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>63.1633</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1029	0.9000	0.7254	1.2700e-003		0.0488	0.0488		0.0464	0.0464	0.0000	107.5175	107.5175	0.0232	0.0000	108.0963
<b>Total</b>	<b>0.1029</b>	<b>0.9000</b>	<b>0.7254</b>	<b>1.2700e-003</b>		<b>0.0488</b>	<b>0.0488</b>		<b>0.0464</b>	<b>0.0464</b>	<b>0.0000</b>	<b>107.5175</b>	<b>107.5175</b>	<b>0.0232</b>	<b>0.0000</b>	<b>108.0963</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0414	0.0110	1.0000e-004	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.9000e-004	0.0000	9.5782	9.5782	7.3000e-004	0.0000	9.5965
Worker	0.0223	0.0165	0.1619	4.9000e-004	0.0485	3.5000e-004	0.0489	0.0129	3.2000e-004	0.0132	0.0000	43.8550	43.8550	1.3200e-003	0.0000	43.8879
<b>Total</b>	<b>0.0237</b>	<b>0.0579</b>	<b>0.1729</b>	<b>5.9000e-004</b>	<b>0.0509</b>	<b>5.5000e-004</b>	<b>0.0515</b>	<b>0.0136</b>	<b>5.1000e-004</b>	<b>0.0141</b>	<b>0.0000</b>	<b>53.4331</b>	<b>53.4331</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>53.4844</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	0.7081	0.7812	1.2700e-003		0.0426	0.0426		0.0413	0.0413	0.0000	107.5174	107.5174	0.0232	0.0000	108.0962
<b>Total</b>	<b>0.0502</b>	<b>0.7081</b>	<b>0.7812</b>	<b>1.2700e-003</b>		<b>0.0426</b>	<b>0.0426</b>		<b>0.0413</b>	<b>0.0413</b>	<b>0.0000</b>	<b>107.5174</b>	<b>107.5174</b>	<b>0.0232</b>	<b>0.0000</b>	<b>108.0962</b>



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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0414	0.0110	1.0000e-004	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.9000e-004	0.0000	9.5782	9.5782	7.3000e-004	0.0000	9.5965
Worker	0.0223	0.0165	0.1619	4.9000e-004	0.0485	3.5000e-004	0.0489	0.0129	3.2000e-004	0.0132	0.0000	43.8550	43.8550	1.3200e-003	0.0000	43.8879
<b>Total</b>	<b>0.0237</b>	<b>0.0579</b>	<b>0.1729</b>	<b>5.9000e-004</b>	<b>0.0509</b>	<b>5.5000e-004</b>	<b>0.0515</b>	<b>0.0136</b>	<b>5.1000e-004</b>	<b>0.0141</b>	<b>0.0000</b>	<b>53.4331</b>	<b>53.4331</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>53.4844</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0247	0.2394	0.1598	2.7000e-004		0.0128	0.0128		0.0120	0.0120	0.0000	24.1467	24.1467	6.0100e-003	0.0000	24.2969
<b>Total</b>	<b>0.0247</b>	<b>0.2394</b>	<b>0.1598</b>	<b>2.7000e-004</b>		<b>0.0128</b>	<b>0.0128</b>		<b>0.0120</b>	<b>0.0120</b>	<b>0.0000</b>	<b>24.1467</b>	<b>24.1467</b>	<b>6.0100e-003</b>	<b>0.0000</b>	<b>24.2969</b>

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**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0148	0.1797	0.1637	2.7000e-004		9.7700e-003	9.7700e-003		9.3600e-003	9.3600e-003	0.0000	24.1467	24.1467	6.0100e-003	0.0000	24.2969
<b>Total</b>	<b>0.0148</b>	<b>0.1797</b>	<b>0.1637</b>	<b>2.7000e-004</b>		<b>9.7700e-003</b>	<b>9.7700e-003</b>		<b>9.3600e-003</b>	<b>9.3600e-003</b>	<b>0.0000</b>	<b>24.1467</b>	<b>24.1467</b>	<b>6.0100e-003</b>	<b>0.0000</b>	<b>24.2969</b>

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**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0367	0.0000	0.0367	0.0201	0.0000	0.0201	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0827	0.7483	0.7359	1.2000e-003		0.0413	0.0413		0.0391	0.0391	0.0000	104.6221	104.6221	0.0249	0.0000	105.2451
<b>Total</b>	<b>0.0827</b>	<b>0.7483</b>	<b>0.7359</b>	<b>1.2000e-003</b>	<b>0.0367</b>	<b>0.0413</b>	<b>0.0781</b>	<b>0.0201</b>	<b>0.0391</b>	<b>0.0592</b>	<b>0.0000</b>	<b>104.6221</b>	<b>104.6221</b>	<b>0.0249</b>	<b>0.0000</b>	<b>105.2451</b>

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**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	9.6500e-003	2.1100e-003	2.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.4557	2.4557	2.2000e-004	0.0000	2.4613
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	1.4700e-003	0.0142	4.0000e-005	3.8900e-003	3.0000e-005	3.9200e-003	1.0300e-003	3.0000e-005	1.0600e-003	0.0000	3.6302	3.6302	1.2000e-004	0.0000	3.6331
<b>Total</b>	<b>2.1900e-003</b>	<b>0.0111</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.4300e-003</b>	<b>7.0000e-005</b>	<b>4.5000e-003</b>	<b>1.1800e-003</b>	<b>6.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>6.0859</b>	<b>6.0859</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>6.0944</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0165	0.0000	0.0165	9.0400e-003	0.0000	9.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.6077	0.7600	1.2000e-003		0.0352	0.0352		0.0343	0.0343	0.0000	104.6220	104.6220	0.0249	0.0000	105.2450
<b>Total</b>	<b>0.0458</b>	<b>0.6077</b>	<b>0.7600</b>	<b>1.2000e-003</b>	<b>0.0165</b>	<b>0.0352</b>	<b>0.0517</b>	<b>9.0400e-003</b>	<b>0.0343</b>	<b>0.0433</b>	<b>0.0000</b>	<b>104.6220</b>	<b>104.6220</b>	<b>0.0249</b>	<b>0.0000</b>	<b>105.2450</b>

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**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	9.6500e-003	2.1100e-003	2.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.4557	2.4557	2.2000e-004	0.0000	2.4613
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	1.4700e-003	0.0142	4.0000e-005	3.8900e-003	3.0000e-005	3.9200e-003	1.0300e-003	3.0000e-005	1.0600e-003	0.0000	3.6302	3.6302	1.2000e-004	0.0000	3.6331
<b>Total</b>	<b>2.1900e-003</b>	<b>0.0111</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.4300e-003</b>	<b>7.0000e-005</b>	<b>4.5000e-003</b>	<b>1.1800e-003</b>	<b>6.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>6.0859</b>	<b>6.0859</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>6.0944</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.3321	0.3185	5.2000e-004		0.0179	0.0179		0.0166	0.0166	0.0000	43.0006	43.0006	0.0122	0.0000	43.3061
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0362</b>	<b>0.3321</b>	<b>0.3185</b>	<b>5.2000e-004</b>		<b>0.0179</b>	<b>0.0179</b>		<b>0.0166</b>	<b>0.0166</b>	<b>0.0000</b>	<b>43.0006</b>	<b>43.0006</b>	<b>0.0122</b>	<b>0.0000</b>	<b>43.3061</b>

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**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.9600e-003	0.0193	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.2191	5.2191	1.6000e-004	0.0000	5.2230
<b>Total</b>	<b>2.6500e-003</b>	<b>1.9600e-003</b>	<b>0.0193</b>	<b>6.0000e-005</b>	<b>5.7700e-003</b>	<b>4.0000e-005</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>5.2191</b>	<b>5.2191</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>5.2230</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0194	0.2551	0.3316	5.2000e-004		0.0144	0.0144		0.0141	0.0141	0.0000	43.0005	43.0005	0.0122	0.0000	43.3061
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0194</b>	<b>0.2551</b>	<b>0.3316</b>	<b>5.2000e-004</b>		<b>0.0144</b>	<b>0.0144</b>		<b>0.0141</b>	<b>0.0141</b>	<b>0.0000</b>	<b>43.0005</b>	<b>43.0005</b>	<b>0.0122</b>	<b>0.0000</b>	<b>43.3061</b>

NCPWF IPS - San Diego County APCD Air District, Annual

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.9600e-003	0.0193	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.2191	5.2191	1.6000e-004	0.0000	5.2230
<b>Total</b>	<b>2.6500e-003</b>	<b>1.9600e-003</b>	<b>0.0193</b>	<b>6.0000e-005</b>	<b>5.7700e-003</b>	<b>4.0000e-005</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>5.2191</b>	<b>5.2191</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>5.2230</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF IPS - San Diego County APCD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N





NCPWF IPS - San Diego County APCD Air District, Annual

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCPWF IPS - San Diego County APCD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Unmitigated	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3000e-004</b>

NCPWF IPS - San Diego County APCD Air District, Annual

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

NCPWF IPS - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

NCPWF IPS - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

NCPWF IPS - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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NCPWF IPS - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF IPS - San Diego County APCD Air District, Summer

**NCPWF IPS**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.70	1000sqft	0.15	6,700.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCPWF IPS - San Diego County APCD Air District, Summer

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading - See Section 7.2.1 for Construction Details.

Demolition - No demolition of structures anticipated.

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No mobile source emissions.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00



NCPWF IPS - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	NumDays	100.00	260.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	97.00
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	PhaseEndDate	1/6/2019	7/7/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	6/17/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	2/4/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	10/7/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/20/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	2/5/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	0.30
tblGrading	MaterialImported	0.00	943.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29

NCPWF IPS - San Diego County APCD Air District, Summer

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	8.31	0.29
tblTripsAndVMT	HaulingTripNumber	118.00	63.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	100.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00

## NCPWF IPS - San Diego County APCD Air District, Summer

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,549,375.00	10,400.00

## 2.0 Emissions Summary

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NCPWF IPS - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

NCPWF IPS - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/18/2020	7/7/2020	5	14	
2	Building Construction	Building Construction	6/20/2019	6/17/2020	5	260	
3	Demolition	Demolition	1/7/2019	2/4/2019	5	21	
4	Grading	Grading	2/5/2019	6/19/2019	5	97	
5	Paving	Paving	6/18/2020	10/7/2020	5	80	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,050; Non-Residential Outdoor: 3,350; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF IPS - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Rubber Tired Dozers	1	1.00	247	0.40
	Cranes	2	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

NCPWF IPS - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	100.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	10.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.6785</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>0.0220</b>	<b>0.0148</b>	<b>0.1701</b>	<b>5.1000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>50.5648</b>	<b>50.5648</b>	<b>1.5100e-003</b>		<b>50.6026</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.4958</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>0.0220</b>	<b>0.0148</b>	<b>0.1701</b>	<b>5.1000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>50.5648</b>	<b>50.5648</b>	<b>1.5100e-003</b>		<b>50.6026</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8877	16.2737	12.2687	0.0210		0.9270	0.9270		0.8810	0.8810		1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>1.8877</b>	<b>16.2737</b>	<b>12.2687</b>	<b>0.0210</b>		<b>0.9270</b>	<b>0.9270</b>		<b>0.8810</b>	<b>0.8810</b>		<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0276	0.7439	0.1921	1.6600e-003	0.0406	5.1800e-003	0.0458	0.0117	4.9500e-003	0.0166		177.6100	177.6100	0.0137		177.9528
Worker	0.3927	0.2740	3.0941	8.7400e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		870.1996	870.1996	0.0278		870.8943
<b>Total</b>	<b>0.4203</b>	<b>1.0180</b>	<b>3.2862</b>	<b>0.0104</b>	<b>0.8621</b>	<b>0.0110</b>	<b>0.8731</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2399</b>		<b>1,047.8096</b>	<b>1,047.8096</b>	<b>0.0415</b>		<b>1,048.8471</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8729	12.0953	12.9520	0.0210		0.7440	0.7440		0.7203	0.7203	0.0000	1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>0.8729</b>	<b>12.0953</b>	<b>12.9520</b>	<b>0.0210</b>		<b>0.7440</b>	<b>0.7440</b>		<b>0.7203</b>	<b>0.7203</b>	<b>0.0000</b>	<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0276	0.7439	0.1921	1.6600e-003	0.0406	5.1800e-003	0.0458	0.0117	4.9500e-003	0.0166		177.6100	177.6100	0.0137		177.9528
Worker	0.3927	0.2740	3.0941	8.7400e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		870.1996	870.1996	0.0278		870.8943
<b>Total</b>	<b>0.4203</b>	<b>1.0180</b>	<b>3.2862</b>	<b>0.0104</b>	<b>0.8621</b>	<b>0.0110</b>	<b>0.8731</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2399</b>		<b>1,047.8096</b>	<b>1,047.8096</b>	<b>0.0415</b>		<b>1,048.8471</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7000	14.8762	11.9896	0.0210		0.8073	0.8073		0.7674	0.7674		1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>1.7000</b>	<b>14.8762</b>	<b>11.9896</b>	<b>0.0210</b>		<b>0.8073</b>	<b>0.8073</b>		<b>0.7674</b>	<b>0.7674</b>		<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>



NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0224	0.6766	0.1724	1.6400e-003	0.0406	3.3100e-003	0.0439	0.0117	3.1700e-003	0.0149		176.4241	176.4241	0.0130		176.7494
Worker	0.3670	0.2472	2.8346	8.4600e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		842.7471	842.7471	0.0252		843.3762
<b>Total</b>	<b>0.3894</b>	<b>0.9238</b>	<b>3.0070</b>	<b>0.0101</b>	<b>0.8621</b>	<b>9.0700e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.4800e-003</b>	<b>0.2381</b>		<b>1,019.1711</b>	<b>1,019.1711</b>	<b>0.0382</b>		<b>1,020.1256</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8294	11.7040	12.9118	0.0210		0.7037	0.7037		0.6832	0.6832	0.0000	1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>0.8294</b>	<b>11.7040</b>	<b>12.9118</b>	<b>0.0210</b>		<b>0.7037</b>	<b>0.7037</b>		<b>0.6832</b>	<b>0.6832</b>	<b>0.0000</b>	<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0224	0.6766	0.1724	1.6400e-003	0.0406	3.3100e-003	0.0439	0.0117	3.1700e-003	0.0149		176.4241	176.4241	0.0130		176.7494
Worker	0.3670	0.2472	2.8346	8.4600e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		842.7471	842.7471	0.0252		843.3762
<b>Total</b>	<b>0.3894</b>	<b>0.9238</b>	<b>3.0070</b>	<b>0.0101</b>	<b>0.8621</b>	<b>9.0700e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.4800e-003</b>	<b>0.2381</b>		<b>1,019.1711</b>	<b>1,019.1711</b>	<b>0.0382</b>		<b>1,020.1256</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3550	22.7953	15.2215	0.0261		1.2180	1.2180		1.1418	1.1418		2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>2.3550</b>	<b>22.7953</b>	<b>15.2215</b>	<b>0.0261</b>		<b>1.2180</b>	<b>1.2180</b>		<b>1.1418</b>	<b>1.1418</b>		<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4047	17.1119	15.5888	0.0261		0.9308	0.9308		0.8916	0.8916	0.0000	2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>1.4047</b>	<b>17.1119</b>	<b>15.5888</b>	<b>0.0261</b>		<b>0.9308</b>	<b>0.9308</b>		<b>0.8916</b>	<b>0.8916</b>	<b>0.0000</b>	<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7574	0.0000	0.7574	0.4143	0.0000	0.4143			0.0000			0.0000
Off-Road	1.7044	15.4281	15.1734	0.0248		0.8524	0.8524		0.8070	0.8070		2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>1.7044</b>	<b>15.4281</b>	<b>15.1734</b>	<b>0.0248</b>	<b>0.7574</b>	<b>0.8524</b>	<b>1.6098</b>	<b>0.4143</b>	<b>0.8070</b>	<b>1.2213</b>		<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6400e-003	0.1951	0.0421	5.2000e-004	0.0114	7.4000e-004	0.0121	3.1100e-003	7.0000e-004	3.8100e-003		56.2111	56.2111	4.9700e-003		56.3355
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0449</b>	<b>0.2225</b>	<b>0.3515</b>	<b>1.3900e-003</b>	<b>0.0935</b>	<b>1.3300e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2400e-003</b>	<b>0.0261</b>		<b>143.2311</b>	<b>143.2311</b>	<b>7.7500e-003</b>		<b>143.4249</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3408	0.0000	0.3408	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.9445	12.5296	15.6700	0.0248		0.7254	0.7254		0.7067	0.7067	0.0000	2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>0.9445</b>	<b>12.5296</b>	<b>15.6700</b>	<b>0.0248</b>	<b>0.3408</b>	<b>0.7254</b>	<b>1.0662</b>	<b>0.1865</b>	<b>0.7067</b>	<b>0.8932</b>	<b>0.0000</b>	<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6400e-003	0.1951	0.0421	5.2000e-004	0.0114	7.4000e-004	0.0121	3.1100e-003	7.0000e-004	3.8100e-003		56.2111	56.2111	4.9700e-003		56.3355
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0449</b>	<b>0.2225</b>	<b>0.3515</b>	<b>1.3900e-003</b>	<b>0.0935</b>	<b>1.3300e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2400e-003</b>	<b>0.0261</b>		<b>143.2311</b>	<b>143.2311</b>	<b>7.7500e-003</b>		<b>143.4249</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9039	8.3029	7.9626	0.0129		0.4464	0.4464		0.4155	0.4155		1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9039</b>	<b>8.3029</b>	<b>7.9626</b>	<b>0.0129</b>		<b>0.4464</b>	<b>0.4464</b>		<b>0.4155</b>	<b>0.4155</b>		<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4855	6.3769	8.2906	0.0129		0.3600	0.3600		0.3522	0.3522	0.0000	1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4855</b>	<b>6.3769</b>	<b>8.2906</b>	<b>0.0129</b>		<b>0.3600</b>	<b>0.3600</b>		<b>0.3522</b>	<b>0.3522</b>	<b>0.0000</b>	<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



NCPWF IPS - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

NCPWF IPS - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

NCPWF IPS - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCPWF IPS - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Unmitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF IPS - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF IPS - San Diego County APCD Air District, Winter

**NCPWF IPS**

**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.70	1000sqft	0.15	6,700.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCPWF IPS - San Diego County APCD Air District, Winter

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading - See Section 7.2.1 for Construction Details.

Demolition - No demolition of structures anticipated.

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No mobile source emissions.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00





NCPWF IPS - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	NumDays	100.00	260.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	97.00
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	PhaseEndDate	1/6/2019	7/7/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	6/17/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	2/4/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	10/7/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/20/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	2/5/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	0.30
tblGrading	MaterialImported	0.00	943.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29

NCPWF IPS - San Diego County APCD Air District, Winter

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	8.31	0.29
tblTripsAndVMT	HaulingTripNumber	118.00	63.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	100.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00

## NCPWF IPS - San Diego County APCD Air District, Winter

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,549,375.00	10,400.00

## 2.0 Emissions Summary

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NCPWF IPS - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

## NCPWF IPS - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/18/2020	7/7/2020	5	14	
2	Building Construction	Building Construction	6/20/2019	6/17/2020	5	260	
3	Demolition	Demolition	1/7/2019	2/4/2019	5	21	
4	Grading	Grading	2/5/2019	6/19/2019	5	97	
5	Paving	Paving	6/18/2020	10/7/2020	5	80	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,050; Non-Residential Outdoor: 3,350; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF IPS - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Rubber Tired Dozers	1	1.00	247	0.40
	Cranes	2	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**



NCPWF IPS - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	100.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	10.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.6785</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>0.0249</b>	<b>0.0167</b>	<b>0.1604</b>	<b>4.8000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>47.4679</b>	<b>47.4679</b>	<b>1.4300e-003</b>		<b>47.5037</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.4958</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>0.0249</b>	<b>0.0167</b>	<b>0.1604</b>	<b>4.8000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>47.4679</b>	<b>47.4679</b>	<b>1.4300e-003</b>		<b>47.5037</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8877	16.2737	12.2687	0.0210		0.9270	0.9270		0.8810	0.8810		1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>1.8877</b>	<b>16.2737</b>	<b>12.2687</b>	<b>0.0210</b>		<b>0.9270</b>	<b>0.9270</b>		<b>0.8810</b>	<b>0.8810</b>		<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7445	0.2129	1.6200e-003	0.0406	5.2700e-003	0.0459	0.0117	5.0400e-003	0.0167		173.1002	173.1002	0.0146		173.4648
Worker	0.4441	0.3078	2.9239	8.2000e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		816.9138	816.9138	0.0264		817.5727
<b>Total</b>	<b>0.4729</b>	<b>1.0523</b>	<b>3.1369</b>	<b>9.8200e-003</b>	<b>0.8621</b>	<b>0.0111</b>	<b>0.8732</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2400</b>		<b>990.0139</b>	<b>990.0139</b>	<b>0.0410</b>		<b>991.0376</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8729	12.0953	12.9520	0.0210		0.7440	0.7440		0.7203	0.7203	0.0000	1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>0.8729</b>	<b>12.0953</b>	<b>12.9520</b>	<b>0.0210</b>		<b>0.7440</b>	<b>0.7440</b>		<b>0.7203</b>	<b>0.7203</b>	<b>0.0000</b>	<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7445	0.2129	1.6200e-003	0.0406	5.2700e-003	0.0459	0.0117	5.0400e-003	0.0167		173.1002	173.1002	0.0146		173.4648
Worker	0.4441	0.3078	2.9239	8.2000e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		816.9138	816.9138	0.0264		817.5727
<b>Total</b>	<b>0.4729</b>	<b>1.0523</b>	<b>3.1369</b>	<b>9.8200e-003</b>	<b>0.8621</b>	<b>0.0111</b>	<b>0.8732</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2400</b>		<b>990.0139</b>	<b>990.0139</b>	<b>0.0410</b>		<b>991.0376</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7000	14.8762	11.9896	0.0210		0.8073	0.8073		0.7674	0.7674		1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>1.7000</b>	<b>14.8762</b>	<b>11.9896</b>	<b>0.0210</b>		<b>0.8073</b>	<b>0.8073</b>		<b>0.7674</b>	<b>0.7674</b>		<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0235	0.6760	0.1913	1.6000e-003	0.0406	3.3700e-003	0.0440	0.0117	3.2300e-003	0.0149		171.8773	171.8773	0.0138		172.2231
Worker	0.4156	0.2776	2.6725	7.9400e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		791.1320	791.1320	0.0238		791.7274
<b>Total</b>	<b>0.4391</b>	<b>0.9536</b>	<b>2.8638</b>	<b>9.5400e-003</b>	<b>0.8621</b>	<b>9.1300e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.5400e-003</b>	<b>0.2381</b>		<b>963.0093</b>	<b>963.0093</b>	<b>0.0377</b>		<b>963.9505</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8294	11.7040	12.9118	0.0210		0.7037	0.7037		0.6832	0.6832	0.0000	1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>0.8294</b>	<b>11.7040</b>	<b>12.9118</b>	<b>0.0210</b>		<b>0.7037</b>	<b>0.7037</b>		<b>0.6832</b>	<b>0.6832</b>	<b>0.0000</b>	<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0235	0.6760	0.1913	1.6000e-003	0.0406	3.3700e-003	0.0440	0.0117	3.2300e-003	0.0149		171.8773	171.8773	0.0138		172.2231
Worker	0.4156	0.2776	2.6725	7.9400e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		791.1320	791.1320	0.0238		791.7274
<b>Total</b>	<b>0.4391</b>	<b>0.9536</b>	<b>2.8638</b>	<b>9.5400e-003</b>	<b>0.8621</b>	<b>9.1300e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.5400e-003</b>	<b>0.2381</b>		<b>963.0093</b>	<b>963.0093</b>	<b>0.0377</b>		<b>963.9505</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3550	22.7953	15.2215	0.0261		1.2180	1.2180		1.1418	1.1418		2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>2.3550</b>	<b>22.7953</b>	<b>15.2215</b>	<b>0.0261</b>		<b>1.2180</b>	<b>1.2180</b>		<b>1.1418</b>	<b>1.1418</b>		<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4047	17.1119	15.5888	0.0261		0.9308	0.9308		0.8916	0.8916	0.0000	2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>1.4047</b>	<b>17.1119</b>	<b>15.5888</b>	<b>0.0261</b>		<b>0.9308</b>	<b>0.9308</b>		<b>0.8916</b>	<b>0.8916</b>	<b>0.0000</b>	<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>



NCPWF IPS - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7574	0.0000	0.7574	0.4143	0.0000	0.4143			0.0000			0.0000
Off-Road	1.7044	15.4281	15.1734	0.0248		0.8524	0.8524		0.8070	0.8070		2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>1.7044</b>	<b>15.4281</b>	<b>15.1734</b>	<b>0.0248</b>	<b>0.7574</b>	<b>0.8524</b>	<b>1.6098</b>	<b>0.4143</b>	<b>0.8070</b>	<b>1.2213</b>		<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8000e-003	0.1971	0.0451	5.1000e-004	0.0114	7.5000e-004	0.0121	3.1100e-003	7.2000e-004	3.8300e-003		55.2652	55.2652	5.1500e-003		55.3941
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0502</b>	<b>0.2279</b>	<b>0.3375</b>	<b>1.3300e-003</b>	<b>0.0935</b>	<b>1.3400e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2600e-003</b>	<b>0.0262</b>		<b>136.9566</b>	<b>136.9566</b>	<b>7.7900e-003</b>		<b>137.1514</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3408	0.0000	0.3408	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.9445	12.5296	15.6700	0.0248		0.7254	0.7254		0.7067	0.7067	0.0000	2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>0.9445</b>	<b>12.5296</b>	<b>15.6700</b>	<b>0.0248</b>	<b>0.3408</b>	<b>0.7254</b>	<b>1.0662</b>	<b>0.1865</b>	<b>0.7067</b>	<b>0.8932</b>	<b>0.0000</b>	<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8000e-003	0.1971	0.0451	5.1000e-004	0.0114	7.5000e-004	0.0121	3.1100e-003	7.2000e-004	3.8300e-003		55.2652	55.2652	5.1500e-003		55.3941
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0502</b>	<b>0.2279</b>	<b>0.3375</b>	<b>1.3300e-003</b>	<b>0.0935</b>	<b>1.3400e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2600e-003</b>	<b>0.0262</b>		<b>136.9566</b>	<b>136.9566</b>	<b>7.7900e-003</b>		<b>137.1514</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9039	8.3029	7.9626	0.0129		0.4464	0.4464		0.4155	0.4155		1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9039</b>	<b>8.3029</b>	<b>7.9626</b>	<b>0.0129</b>		<b>0.4464</b>	<b>0.4464</b>		<b>0.4155</b>	<b>0.4155</b>		<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4855	6.3769	8.2906	0.0129		0.3600	0.3600		0.3522	0.3522	0.0000	1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4855</b>	<b>6.3769</b>	<b>8.2906</b>	<b>0.0129</b>		<b>0.3600</b>	<b>0.3600</b>		<b>0.3522</b>	<b>0.3522</b>	<b>0.0000</b>	<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF IPS - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

NCPWF IPS - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior



NCPWF IPS - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Unmitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF IPS - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	322.47	1000sqft	7.40	322,468.42	37

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

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On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - See section 7.2.2 for additional information on the emergency generator.

Stationary Sources - Process Boilers - No stationary sources.

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Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	300.00	8.50
tblGrading	AcresOfGrading	211.50	8.50
tblGrading	MaterialExported	0.00	9,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	BuildingSpaceSquareFeet	322,470.00	322,468.42
tblLandUse	LandUseSquareFeet	322,470.00	322,468.42
tblLandUse	Population	0.00	37.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	399.86	21.45

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tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,000.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	8.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	53.00	54.00
tblTripsAndVMT	WorkerTripNumber	35.00	36.00
tblTripsAndVMT	WorkerTripNumber	135.00	136.00
tblTripsAndVMT	WorkerTripNumber	27.00	28.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.63
tblVehicleTrips	SU_TR	0.68	1.00
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	74,571,187.50	769,600.00

## 2.0 Emissions Summary

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4287	5.0312	2.7816	6.5500e-003	0.4061	0.1978	0.6039	0.2091	0.1821	0.3912	0.0000	593.4427	593.4427	0.1655	0.0000	597.5792
2020	0.4438	4.2591	3.2600	7.6600e-003	0.1768	0.1802	0.3570	0.0470	0.1675	0.2145	0.0000	684.7719	684.7719	0.1391	0.0000	688.2491
2021	0.4121	3.8893	3.2737	7.7700e-003	0.1891	0.1580	0.3471	0.0513	0.1470	0.1983	0.0000	694.9486	694.9486	0.1327	0.0000	698.2664
2022	1.6299	1.2192	1.2237	2.8600e-003	0.0748	0.0471	0.1219	0.0202	0.0438	0.0640	0.0000	255.4164	255.4164	0.0497	0.0000	256.6582
<b>Maximum</b>	<b>1.6299</b>	<b>5.0312</b>	<b>3.2737</b>	<b>7.7700e-003</b>	<b>0.4061</b>	<b>0.1978</b>	<b>0.6039</b>	<b>0.2091</b>	<b>0.1821</b>	<b>0.3912</b>	<b>0.0000</b>	<b>694.9486</b>	<b>694.9486</b>	<b>0.1655</b>	<b>0.0000</b>	<b>698.2664</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1524	2.9762	3.2189	6.5500e-003	0.2017	0.1124	0.3141	0.0992	0.1123	0.2115	0.0000	593.4421	593.4421	0.1655	0.0000	597.5786
2020	0.2050	3.2675	3.5866	7.6600e-003	0.1740	0.1455	0.3194	0.0467	0.1453	0.1920	0.0000	684.7715	684.7715	0.1391	0.0000	688.2486
2021	0.2054	3.2318	3.5938	7.7700e-003	0.1891	0.1479	0.3370	0.0513	0.1478	0.1991	0.0000	694.9482	694.9482	0.1327	0.0000	698.2659
2022	1.5713	1.1597	1.3781	2.8600e-003	0.0748	0.0562	0.1309	0.0202	0.0561	0.0763	0.0000	255.4162	255.4162	0.0497	0.0000	256.6580
<b>Maximum</b>	<b>1.5713</b>	<b>3.2675</b>	<b>3.5938</b>	<b>7.7700e-003</b>	<b>0.2017</b>	<b>0.1479</b>	<b>0.3370</b>	<b>0.0992</b>	<b>0.1478</b>	<b>0.2115</b>	<b>0.0000</b>	<b>694.9482</b>	<b>694.9482</b>	<b>0.1655</b>	<b>0.0000</b>	<b>698.2659</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>26.78</b>	<b>26.14</b>	<b>-11.75</b>	<b>0.00</b>	<b>24.47</b>	<b>20.76</b>	<b>22.96</b>	<b>33.64</b>	<b>14.60</b>	<b>21.78</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-21-2019	8-20-2019	3.6785	1.9948
2	8-21-2019	11-20-2019	1.2248	0.7782
3	11-21-2019	2-20-2020	1.1687	0.7753
4	2-21-2020	5-20-2020	1.1583	0.8611
5	5-21-2020	8-20-2020	1.1861	0.8851
6	8-21-2020	11-20-2020	1.1882	0.8871
7	11-21-2020	2-20-2021	1.1307	0.8759
8	2-21-2021	5-20-2021	1.0462	0.8357

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9	5-21-2021	8-20-2021	1.0801	0.8625
10	8-21-2021	11-20-2021	1.0818	0.8642
11	11-21-2021	2-20-2022	1.0245	0.8588
12	2-21-2022	5-20-2022	0.8689	0.7941
13	5-21-2022	8-20-2022	0.7211	0.7339
14	8-21-2022	9-30-2022	0.3214	0.3270
		Highest	3.6785	1.9948

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4814	160.4814	7.9400e-003	0.0000	160.6800
Stationary	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
Waste						0.0000	0.0000		0.0000	0.0000	4.3542	0.0000	4.3542	0.2573	0.0000	10.7872
Water						0.0000	0.0000		0.0000	0.0000	0.2442	3.2749	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>	<b>1.4840</b>	<b>0.3442</b>	<b>0.5732</b>	<b>1.9400e-003</b>	<b>0.1571</b>	<b>7.4800e-003</b>	<b>0.1646</b>	<b>0.0421</b>	<b>7.3900e-003</b>	<b>0.0495</b>	<b>4.5983</b>	<b>182.8020</b>	<b>187.4003</b>	<b>0.2932</b>	<b>6.2000e-004</b>	<b>194.9139</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4814	160.4814	7.9400e-003	0.0000	160.6800
Stationary	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
Waste						0.0000	0.0000		0.0000	0.0000	4.3542	0.0000	4.3542	0.2573	0.0000	10.7872
Water						0.0000	0.0000		0.0000	0.0000	0.2442	3.2749	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>	<b>1.4840</b>	<b>0.3442</b>	<b>0.5732</b>	<b>1.9400e-003</b>	<b>0.1571</b>	<b>7.4800e-003</b>	<b>0.1646</b>	<b>0.0421</b>	<b>7.3900e-003</b>	<b>0.0495</b>	<b>4.5983</b>	<b>182.8020</b>	<b>187.4003</b>	<b>0.2932</b>	<b>6.2000e-004</b>	<b>194.9139</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mass Grading	Grading	5/21/2019	8/12/2019	5	60	
2	Finish Grading	Grading	8/13/2019	2/25/2020	5	141	
3	Building Construction	Building Construction	2/26/2020	4/22/2022	5	563	
4	Architectural Coating	Architectural Coating	5/7/2022	11/21/2022	5	141	
5	Paving	Paving	4/23/2022	5/6/2022	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,703; Non-Residential Outdoor: 161,234; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mass Grading	Excavators	1	8.00	158	0.38
Mass Grading	Graders	2	8.00	187	0.41
Mass Grading	Off-Highway Trucks	1	8.00	402	0.38
Mass Grading	Plate Compactors	2	8.00	8	0.43
Mass Grading	Rubber Tired Dozers	2	8.00	247	0.40
Mass Grading	Scrapers	4	8.00	367	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Finish Grading	Graders	1	8.00	187	0.41
Finish Grading	Off-Highway Trucks	1	8.00	402	0.38
Finish Grading	Plate Compactors	2	8.00	8	0.43
Finish Grading	Scrapers	1	8.00	367	0.48
Finish Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mass Grading	14	36.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Grading	7	18.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	136.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Mass Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3665	0.0000	0.3665	0.1992	0.0000	0.1992	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2706	3.1204	1.7033	3.4900e-003		0.1304	0.1304		0.1200	0.1200	0.0000	313.2038	313.2038	0.0987	0.0000	315.6712
<b>Total</b>	<b>0.2706</b>	<b>3.1204</b>	<b>1.7033</b>	<b>3.4900e-003</b>	<b>0.3665</b>	<b>0.1304</b>	<b>0.4969</b>	<b>0.1992</b>	<b>0.1200</b>	<b>0.3192</b>	<b>0.0000</b>	<b>313.2038</b>	<b>313.2038</b>	<b>0.0987</b>	<b>0.0000</b>	<b>315.6712</b>

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**3.2 Mass Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9400e-003	0.1724	0.0376	4.4000e-004	9.6300e-003	6.4000e-004	0.0103	2.6400e-003	6.2000e-004	3.2600e-003	0.0000	43.8522	43.8522	3.9700e-003	0.0000	43.9515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2600e-003	3.2700e-003	0.0316	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	8.0838	8.0838	2.6000e-004	0.0000	8.0903
<b>Total</b>	<b>9.2000e-003</b>	<b>0.1757</b>	<b>0.0692</b>	<b>5.3000e-004</b>	<b>0.0183</b>	<b>7.0000e-004</b>	<b>0.0190</b>	<b>4.9400e-003</b>	<b>6.8000e-004</b>	<b>5.6200e-003</b>	<b>0.0000</b>	<b>51.9360</b>	<b>51.9360</b>	<b>4.2300e-003</b>	<b>0.0000</b>	<b>52.0417</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1649	0.0000	0.1649	0.0896	0.0000	0.0896	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0851	1.6610	1.9204	3.4900e-003		0.0671	0.0671		0.0671	0.0671	0.0000	313.2034	313.2034	0.0987	0.0000	315.6708
<b>Total</b>	<b>0.0851</b>	<b>1.6610</b>	<b>1.9204</b>	<b>3.4900e-003</b>	<b>0.1649</b>	<b>0.0671</b>	<b>0.2320</b>	<b>0.0896</b>	<b>0.0671</b>	<b>0.1568</b>	<b>0.0000</b>	<b>313.2034</b>	<b>313.2034</b>	<b>0.0987</b>	<b>0.0000</b>	<b>315.6708</b>



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**3.2 Mass Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9400e-003	0.1724	0.0376	4.4000e-004	9.6300e-003	6.4000e-004	0.0103	2.6400e-003	6.2000e-004	3.2600e-003	0.0000	43.8522	43.8522	3.9700e-003	0.0000	43.9515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2600e-003	3.2700e-003	0.0316	9.0000e-005	8.6600e-003	6.0000e-005	8.7200e-003	2.3000e-003	6.0000e-005	2.3600e-003	0.0000	8.0838	8.0838	2.6000e-004	0.0000	8.0903
<b>Total</b>	<b>9.2000e-003</b>	<b>0.1757</b>	<b>0.0692</b>	<b>5.3000e-004</b>	<b>0.0183</b>	<b>7.0000e-004</b>	<b>0.0190</b>	<b>4.9400e-003</b>	<b>6.8000e-004</b>	<b>5.6200e-003</b>	<b>0.0000</b>	<b>51.9360</b>	<b>51.9360</b>	<b>4.2300e-003</b>	<b>0.0000</b>	<b>52.0417</b>

**3.3 Finish Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	5.8000e-004	0.0000	5.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1418	1.6090	0.9556	2.1300e-003		0.0662	0.0662		0.0610	0.0610	0.0000	190.0873	190.0873	0.0595	0.0000	191.5741
<b>Total</b>	<b>0.1418</b>	<b>1.6090</b>	<b>0.9556</b>	<b>2.1300e-003</b>	<b>5.1400e-003</b>	<b>0.0662</b>	<b>0.0713</b>	<b>5.8000e-004</b>	<b>0.0610</b>	<b>0.0615</b>	<b>0.0000</b>	<b>190.0873</b>	<b>190.0873</b>	<b>0.0595</b>	<b>0.0000</b>	<b>191.5741</b>

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**3.3 Finish Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5400e-003	0.1235	0.0269	3.2000e-004	8.9500e-003	4.6000e-004	9.4100e-003	2.4000e-003	4.4000e-004	2.8400e-003	0.0000	31.4119	31.4119	2.8400e-003	0.0000	31.4830
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5800e-003	2.7500e-003	0.0266	8.0000e-005	7.2900e-003	5.0000e-005	7.3400e-003	1.9400e-003	5.0000e-005	1.9900e-003	0.0000	6.8038	6.8038	2.2000e-004	0.0000	6.8093
<b>Total</b>	<b>7.1200e-003</b>	<b>0.1262</b>	<b>0.0535</b>	<b>4.0000e-004</b>	<b>0.0162</b>	<b>5.1000e-004</b>	<b>0.0168</b>	<b>4.3400e-003</b>	<b>4.9000e-004</b>	<b>4.8300e-003</b>	<b>0.0000</b>	<b>38.2157</b>	<b>38.2157</b>	<b>3.0600e-003</b>	<b>0.0000</b>	<b>38.2923</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3100e-003	0.0000	2.3100e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0510	1.0133	1.1758	2.1300e-003		0.0441	0.0441		0.0441	0.0441	0.0000	190.0871	190.0871	0.0595	0.0000	191.5738
<b>Total</b>	<b>0.0510</b>	<b>1.0133</b>	<b>1.1758</b>	<b>2.1300e-003</b>	<b>2.3100e-003</b>	<b>0.0441</b>	<b>0.0464</b>	<b>2.6000e-004</b>	<b>0.0441</b>	<b>0.0443</b>	<b>0.0000</b>	<b>190.0871</b>	<b>190.0871</b>	<b>0.0595</b>	<b>0.0000</b>	<b>191.5738</b>

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**3.3 Finish Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5400e-003	0.1235	0.0269	3.2000e-004	8.9500e-003	4.6000e-004	9.4100e-003	2.4000e-003	4.4000e-004	2.8400e-003	0.0000	31.4119	31.4119	2.8400e-003	0.0000	31.4830
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5800e-003	2.7500e-003	0.0266	8.0000e-005	7.2900e-003	5.0000e-005	7.3400e-003	1.9400e-003	5.0000e-005	1.9900e-003	0.0000	6.8038	6.8038	2.2000e-004	0.0000	6.8093
<b>Total</b>	<b>7.1200e-003</b>	<b>0.1262</b>	<b>0.0535</b>	<b>4.0000e-004</b>	<b>0.0162</b>	<b>5.1000e-004</b>	<b>0.0168</b>	<b>4.3400e-003</b>	<b>4.9000e-004</b>	<b>4.8300e-003</b>	<b>0.0000</b>	<b>38.2157</b>	<b>38.2157</b>	<b>3.0600e-003</b>	<b>0.0000</b>	<b>38.2923</b>

**3.3 Finish Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	5.8000e-004	0.0000	5.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0526	0.5823	0.3613	8.4000e-004		0.0235	0.0235		0.0217	0.0217	0.0000	73.6426	73.6426	0.0235	0.0000	74.2311
<b>Total</b>	<b>0.0526</b>	<b>0.5823</b>	<b>0.3613</b>	<b>8.4000e-004</b>	<b>5.1400e-003</b>	<b>0.0235</b>	<b>0.0287</b>	<b>5.8000e-004</b>	<b>0.0217</b>	<b>0.0223</b>	<b>0.0000</b>	<b>73.6426</b>	<b>73.6426</b>	<b>0.0235</b>	<b>0.0000</b>	<b>74.2311</b>

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**3.3 Finish Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2800e-003	0.0454	0.0104	1.2000e-004	7.9100e-003	1.4000e-004	8.0600e-003	2.0200e-003	1.4000e-004	2.1600e-003	0.0000	12.3072	12.3072	1.1100e-003	0.0000	12.3349
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	9.8000e-004	9.6300e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.6096	2.6096	8.0000e-005	0.0000	2.6115
<b>Total</b>	<b>2.6100e-003</b>	<b>0.0464</b>	<b>0.0200</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>1.6000e-004</b>	<b>0.0110</b>	<b>2.7900e-003</b>	<b>1.6000e-004</b>	<b>2.9500e-003</b>	<b>0.0000</b>	<b>14.9167</b>	<b>14.9167</b>	<b>1.1900e-003</b>	<b>0.0000</b>	<b>14.9464</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3100e-003	0.0000	2.3100e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.4013	0.4657	8.4000e-004		0.0175	0.0175		0.0175	0.0175	0.0000	73.6425	73.6425	0.0235	0.0000	74.2310
<b>Total</b>	<b>0.0202</b>	<b>0.4013</b>	<b>0.4657</b>	<b>8.4000e-004</b>	<b>2.3100e-003</b>	<b>0.0175</b>	<b>0.0198</b>	<b>2.6000e-004</b>	<b>0.0175</b>	<b>0.0177</b>	<b>0.0000</b>	<b>73.6425</b>	<b>73.6425</b>	<b>0.0235</b>	<b>0.0000</b>	<b>74.2310</b>

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**3.3 Finish Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2800e-003	0.0454	0.0104	1.2000e-004	7.9100e-003	1.4000e-004	8.0600e-003	2.0200e-003	1.4000e-004	2.1600e-003	0.0000	12.3072	12.3072	1.1100e-003	0.0000	12.3349
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	9.8000e-004	9.6300e-003	3.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.6096	2.6096	8.0000e-005	0.0000	2.6115
<b>Total</b>	<b>2.6100e-003</b>	<b>0.0464</b>	<b>0.0200</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>1.6000e-004</b>	<b>0.0110</b>	<b>2.7900e-003</b>	<b>1.6000e-004</b>	<b>2.9500e-003</b>	<b>0.0000</b>	<b>14.9167</b>	<b>14.9167</b>	<b>1.1900e-003</b>	<b>0.0000</b>	<b>14.9464</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3101	2.9060	2.2933	3.8300e-003		0.1523	0.1523		0.1416	0.1416	0.0000	328.6269	328.6269	0.0990	0.0000	331.1006
<b>Total</b>	<b>0.3101</b>	<b>2.9060</b>	<b>2.2933</b>	<b>3.8300e-003</b>		<b>0.1523</b>	<b>0.1523</b>		<b>0.1416</b>	<b>0.1416</b>	<b>0.0000</b>	<b>328.6269</b>	<b>328.6269</b>	<b>0.0990</b>	<b>0.0000</b>	<b>331.1006</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0228	0.6832	0.1815	1.6200e-003	0.0398	3.3300e-003	0.0431	0.0115	3.1900e-003	0.0147	0.0000	158.1585	158.1585	0.0121	0.0000	158.4616
Worker	0.0556	0.0412	0.4040	1.2100e-003	0.1211	8.7000e-004	0.1219	0.0322	8.0000e-004	0.0330	0.0000	109.4272	109.4272	3.2900e-003	0.0000	109.5093
<b>Total</b>	<b>0.0785</b>	<b>0.7244</b>	<b>0.5855</b>	<b>2.8300e-003</b>	<b>0.1608</b>	<b>4.2000e-003</b>	<b>0.1651</b>	<b>0.0437</b>	<b>3.9900e-003</b>	<b>0.0476</b>	<b>0.0000</b>	<b>267.5858</b>	<b>267.5858</b>	<b>0.0154</b>	<b>0.0000</b>	<b>267.9710</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1037	2.0954	2.5154	3.8300e-003		0.1237	0.1237		0.1237	0.1237	0.0000	328.6265	328.6265	0.0990	0.0000	331.1002
<b>Total</b>	<b>0.1037</b>	<b>2.0954</b>	<b>2.5154</b>	<b>3.8300e-003</b>		<b>0.1237</b>	<b>0.1237</b>		<b>0.1237</b>	<b>0.1237</b>	<b>0.0000</b>	<b>328.6265</b>	<b>328.6265</b>	<b>0.0990</b>	<b>0.0000</b>	<b>331.1002</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0228	0.6832	0.1815	1.6200e-003	0.0398	3.3300e-003	0.0431	0.0115	3.1900e-003	0.0147	0.0000	158.1585	158.1585	0.0121	0.0000	158.4616
Worker	0.0556	0.0412	0.4040	1.2100e-003	0.1211	8.7000e-004	0.1219	0.0322	8.0000e-004	0.0330	0.0000	109.4272	109.4272	3.2900e-003	0.0000	109.5093
<b>Total</b>	<b>0.0785</b>	<b>0.7244</b>	<b>0.5855</b>	<b>2.8300e-003</b>	<b>0.1608</b>	<b>4.2000e-003</b>	<b>0.1651</b>	<b>0.0437</b>	<b>3.9900e-003</b>	<b>0.0476</b>	<b>0.0000</b>	<b>267.5858</b>	<b>267.5858</b>	<b>0.0154</b>	<b>0.0000</b>	<b>267.9710</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3286	3.1210	2.6372	4.5100e-003		0.1554	0.1554		0.1446	0.1446	0.0000	386.3831	386.3831	0.1155	0.0000	389.2699
<b>Total</b>	<b>0.3286</b>	<b>3.1210</b>	<b>2.6372</b>	<b>4.5100e-003</b>		<b>0.1554</b>	<b>0.1554</b>		<b>0.1446</b>	<b>0.1446</b>	<b>0.0000</b>	<b>386.3831</b>	<b>386.3831</b>	<b>0.1155</b>	<b>0.0000</b>	<b>389.2699</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0218	0.7242	0.1931	1.8900e-003	0.0468	1.5300e-003	0.0483	0.0135	1.4700e-003	0.0150	0.0000	184.2368	184.2368	0.0137	0.0000	184.5786
Worker	0.0617	0.0440	0.4434	1.3800e-003	0.1423	1.0100e-003	0.1433	0.0378	9.3000e-004	0.0388	0.0000	124.3288	124.3288	3.5600e-003	0.0000	124.4178
<b>Total</b>	<b>0.0835</b>	<b>0.7682</b>	<b>0.6365</b>	<b>3.2700e-003</b>	<b>0.1891</b>	<b>2.5400e-003</b>	<b>0.1916</b>	<b>0.0513</b>	<b>2.4000e-003</b>	<b>0.0537</b>	<b>0.0000</b>	<b>308.5656</b>	<b>308.5656</b>	<b>0.0172</b>	<b>0.0000</b>	<b>308.9965</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1219	2.4636	2.9573	4.5100e-003		0.1454	0.1454		0.1454	0.1454	0.0000	386.3826	386.3826	0.1155	0.0000	389.2694
<b>Total</b>	<b>0.1219</b>	<b>2.4636</b>	<b>2.9573</b>	<b>4.5100e-003</b>		<b>0.1454</b>	<b>0.1454</b>		<b>0.1454</b>	<b>0.1454</b>	<b>0.0000</b>	<b>386.3826</b>	<b>386.3826</b>	<b>0.1155</b>	<b>0.0000</b>	<b>389.2694</b>



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**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0218	0.7242	0.1931	1.8900e-003	0.0468	1.5300e-003	0.0483	0.0135	1.4700e-003	0.0150	0.0000	184.2368	184.2368	0.0137	0.0000	184.5786
Worker	0.0617	0.0440	0.4434	1.3800e-003	0.1423	1.0100e-003	0.1433	0.0378	9.3000e-004	0.0388	0.0000	124.3288	124.3288	3.5600e-003	0.0000	124.4178
<b>Total</b>	<b>0.0835</b>	<b>0.7682</b>	<b>0.6365</b>	<b>3.2700e-003</b>	<b>0.1891</b>	<b>2.5400e-003</b>	<b>0.1916</b>	<b>0.0513</b>	<b>2.4000e-003</b>	<b>0.0537</b>	<b>0.0000</b>	<b>308.5656</b>	<b>308.5656</b>	<b>0.0172</b>	<b>0.0000</b>	<b>308.9965</b>

**3.4 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0904	0.8531	0.7947	1.3800e-003		0.0406	0.0406		0.0378	0.0378	0.0000	118.4639	118.4639	0.0353	0.0000	119.3451
<b>Total</b>	<b>0.0904</b>	<b>0.8531</b>	<b>0.7947</b>	<b>1.3800e-003</b>		<b>0.0406</b>	<b>0.0406</b>		<b>0.0378</b>	<b>0.0378</b>	<b>0.0000</b>	<b>118.4639</b>	<b>118.4639</b>	<b>0.0353</b>	<b>0.0000</b>	<b>119.3451</b>

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**3.4 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2100e-003	0.2096	0.0561	5.7000e-004	0.0143	4.0000e-004	0.0147	4.1400e-003	3.9000e-004	4.5300e-003	0.0000	55.9363	55.9363	4.0600e-003	0.0000	56.0378
Worker	0.0179	0.0123	0.1262	4.1000e-004	0.0436	3.0000e-004	0.0439	0.0116	2.8000e-004	0.0119	0.0000	36.7115	36.7115	1.0000e-003	0.0000	36.7365
<b>Total</b>	<b>0.0241</b>	<b>0.2219</b>	<b>0.1822</b>	<b>9.8000e-004</b>	<b>0.0580</b>	<b>7.0000e-004</b>	<b>0.0587</b>	<b>0.0157</b>	<b>6.7000e-004</b>	<b>0.0164</b>	<b>0.0000</b>	<b>92.6477</b>	<b>92.6477</b>	<b>5.0600e-003</b>	<b>0.0000</b>	<b>92.7742</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0374	0.7551	0.9065	1.3800e-003		0.0446	0.0446		0.0446	0.0446	0.0000	118.4638	118.4638	0.0353	0.0000	119.3449
<b>Total</b>	<b>0.0374</b>	<b>0.7551</b>	<b>0.9065</b>	<b>1.3800e-003</b>		<b>0.0446</b>	<b>0.0446</b>		<b>0.0446</b>	<b>0.0446</b>	<b>0.0000</b>	<b>118.4638</b>	<b>118.4638</b>	<b>0.0353</b>	<b>0.0000</b>	<b>119.3449</b>

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**3.4 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2100e-003	0.2096	0.0561	5.7000e-004	0.0143	4.0000e-004	0.0147	4.1400e-003	3.9000e-004	4.5300e-003	0.0000	55.9363	55.9363	4.0600e-003	0.0000	56.0378
Worker	0.0179	0.0123	0.1262	4.1000e-004	0.0436	3.0000e-004	0.0439	0.0116	2.8000e-004	0.0119	0.0000	36.7115	36.7115	1.0000e-003	0.0000	36.7365
<b>Total</b>	<b>0.0241</b>	<b>0.2219</b>	<b>0.1822</b>	<b>9.8000e-004</b>	<b>0.0580</b>	<b>7.0000e-004</b>	<b>0.0587</b>	<b>0.0157</b>	<b>6.7000e-004</b>	<b>0.0164</b>	<b>0.0000</b>	<b>92.6477</b>	<b>92.6477</b>	<b>5.0600e-003</b>	<b>0.0000</b>	<b>92.7742</b>

**3.5 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5400e-003	0.0395	0.0771	1.2000e-004		7.3000e-004	7.3000e-004		6.7000e-004	6.7000e-004	0.0000	10.4006	10.4006	3.3600e-003	0.0000	10.4847
<b>Total</b>	<b>1.4972</b>	<b>0.0395</b>	<b>0.0771</b>	<b>1.2000e-004</b>		<b>7.3000e-004</b>	<b>7.3000e-004</b>		<b>6.7000e-004</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>10.4006</b>	<b>10.4006</b>	<b>3.3600e-003</b>	<b>0.0000</b>	<b>10.4847</b>

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**3.5 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4900e-003	4.4600e-003	0.0458	1.5000e-004	0.0158	1.1000e-004	0.0159	4.2100e-003	1.0000e-004	4.3100e-003	0.0000	13.3214	13.3214	3.6000e-004	0.0000	13.3305
<b>Total</b>	<b>6.4900e-003</b>	<b>4.4600e-003</b>	<b>0.0458</b>	<b>1.5000e-004</b>	<b>0.0158</b>	<b>1.1000e-004</b>	<b>0.0159</b>	<b>4.2100e-003</b>	<b>1.0000e-004</b>	<b>4.3100e-003</b>	<b>0.0000</b>	<b>13.3214</b>	<b>13.3214</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>13.3305</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9100e-003	0.0665	0.0899	1.2000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	10.4006	10.4006	3.3600e-003	0.0000	10.4847
<b>Total</b>	<b>1.4976</b>	<b>0.0665</b>	<b>0.0899</b>	<b>1.2000e-004</b>		<b>4.6600e-003</b>	<b>4.6600e-003</b>		<b>4.6600e-003</b>	<b>4.6600e-003</b>	<b>0.0000</b>	<b>10.4006</b>	<b>10.4006</b>	<b>3.3600e-003</b>	<b>0.0000</b>	<b>10.4847</b>

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**3.5 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4900e-003	4.4600e-003	0.0458	1.5000e-004	0.0158	1.1000e-004	0.0159	4.2100e-003	1.0000e-004	4.3100e-003	0.0000	13.3214	13.3214	3.6000e-004	0.0000	13.3305
<b>Total</b>	<b>6.4900e-003</b>	<b>4.4600e-003</b>	<b>0.0458</b>	<b>1.5000e-004</b>	<b>0.0158</b>	<b>1.1000e-004</b>	<b>0.0159</b>	<b>4.2100e-003</b>	<b>1.0000e-004</b>	<b>4.3100e-003</b>	<b>0.0000</b>	<b>13.3214</b>	<b>13.3214</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>13.3305</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0113	0.0999	0.1210	2.3000e-004		4.9500e-003	4.9500e-003		4.6200e-003	4.6200e-003	0.0000	19.7729	19.7729	5.6200e-003	0.0000	19.9133
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0113</b>	<b>0.0999</b>	<b>0.1210</b>	<b>2.3000e-004</b>		<b>4.9500e-003</b>	<b>4.9500e-003</b>		<b>4.6200e-003</b>	<b>4.6200e-003</b>	<b>0.0000</b>	<b>19.7729</b>	<b>19.7729</b>	<b>5.6200e-003</b>	<b>0.0000</b>	<b>19.9133</b>

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**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	2.7800e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.8098	0.8098	2.0000e-005	0.0000	0.8104
<b>Total</b>	<b>3.9000e-004</b>	<b>2.7000e-004</b>	<b>2.7800e-003</b>	<b>1.0000e-005</b>	<b>9.6000e-004</b>	<b>1.0000e-005</b>	<b>9.7000e-004</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.8098</b>	<b>0.8098</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8104</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3800e-003	0.1114	0.1511	2.3000e-004		6.1000e-003	6.1000e-003		6.1000e-003	6.1000e-003	0.0000	19.7729	19.7729	5.6200e-003	0.0000	19.9133
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.3800e-003</b>	<b>0.1114</b>	<b>0.1511</b>	<b>2.3000e-004</b>		<b>6.1000e-003</b>	<b>6.1000e-003</b>		<b>6.1000e-003</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>19.7729</b>	<b>19.7729</b>	<b>5.6200e-003</b>	<b>0.0000</b>	<b>19.9133</b>

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**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	2.7000e-004	2.7800e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004	0.0000	0.8098	0.8098	2.0000e-005	0.0000	0.8104
<b>Total</b>	<b>3.9000e-004</b>	<b>2.7000e-004</b>	<b>2.7800e-003</b>	<b>1.0000e-005</b>	<b>9.6000e-004</b>	<b>1.0000e-005</b>	<b>9.7000e-004</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>0.8098</b>	<b>0.8098</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8104</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4814	160.4814	7.9400e-003	0.0000	160.6800
Unmitigated	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4814	160.4814	7.9400e-003	0.0000	160.6800

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	32.25	201.68	322.47	416,990	416,990
Total	32.25	201.68	322.47	416,990	416,990

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N





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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
Unmitigated	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1495					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2594					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
<b>Total</b>	<b>1.4091</b>	<b>3.0000e-005</b>	<b>2.9700e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7600e-003</b>	<b>5.7600e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1400e-003</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1495					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2594					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
<b>Total</b>	<b>1.4091</b>	<b>3.0000e-005</b>	<b>2.9700e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7600e-003</b>	<b>5.7600e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1400e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.5191	0.0252	6.2000e-004	4.3339
Unmitigated	3.5191	0.0252	6.2000e-004	4.3339

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.7696 / 0	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>		<b>3.5191</b>	<b>0.0252</b>	<b>6.2000e-004</b>	<b>4.3339</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.7696 / 0	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>		<b>3.5191</b>	<b>0.0252</b>	<b>6.2000e-004</b>	<b>4.3339</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.3542	0.2573	0.0000	10.7872
Unmitigated	4.3542	0.2573	0.0000	10.7872

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.45	4.3542	0.2573	0.0000	10.7872
<b>Total</b>		<b>4.3542</b>	<b>0.2573</b>	<b>0.0000</b>	<b>10.7872</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.45	4.3542	0.2573	0.0000	10.7872
<b>Total</b>		<b>4.3542</b>	<b>0.2573</b>	<b>0.0000</b>	<b>10.7872</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	8	50	1000	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750-9999 HP)	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
<b>Total</b>	<b>0.0410</b>	<b>0.1835</b>	<b>0.1046</b>	<b>2.0000e-004</b>		<b>6.0400e-003</b>	<b>6.0400e-003</b>		<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>0.0000</b>	<b>19.0399</b>	<b>19.0399</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>19.1066</b>

**11.0 Vegetation**

NCPWF MR - San Diego County APCD Air District, Summer

**NCPWF MR**

**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	322.47	1000sqft	7.40	322,468.42	37

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

NCPWF MR - San Diego County APCD Air District, Summer

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - See section 7.2.2 for additional information on the emergency generator.

Stationary Sources - Process Boilers - No stationary sources.

NCPWF MR - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	300.00	8.50
tblGrading	AcresOfGrading	211.50	8.50
tblGrading	MaterialExported	0.00	9,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	BuildingSpaceSquareFeet	322,470.00	322,468.42
tblLandUse	LandUseSquareFeet	322,470.00	322,468.42
tblLandUse	Population	0.00	37.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	399.86	21.45

## NCPWF MR - San Diego County APCD Air District, Summer

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,000.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	8.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	53.00	54.00
tblTripsAndVMT	WorkerTripNumber	35.00	36.00
tblTripsAndVMT	WorkerTripNumber	135.00	136.00
tblTripsAndVMT	WorkerTripNumber	27.00	28.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.63
tblVehicleTrips	SU_TR	0.68	1.00
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	74,571,187.50	769,600.00

## 2.0 Emissions Summary

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NCPWF MR - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	9.3242	109.7428	59.1059	0.1345	12.8389	4.3696	17.2084	6.8081	4.0223	10.8304	0.0000	13,444.30 20	13,444.30 20	3.7801	0.0000	13,538.80 32
2020	3.4943	32.6057	26.0662	0.0608	1.4828	1.4095	2.8923	0.4016	1.3118	1.7133	0.0000	5,997.458 4	5,997.458 4	1.3623	0.0000	6,025.807 6
2021	3.1520	29.7205	25.2170	0.0603	1.4828	1.2104	2.6932	0.4016	1.1258	1.5274	0.0000	5,944.652 4	5,944.652 4	1.1194	0.0000	5,972.637 5
2022	21.3282	26.8030	24.7923	0.0597	1.4828	1.0325	2.5152	0.4016	0.9604	1.3620	0.0000	5,890.1187	5,890.1187	1.2433	0.0000	5,917.849 6
<b>Maximum</b>	<b>21.3282</b>	<b>109.7428</b>	<b>59.1059</b>	<b>0.1345</b>	<b>12.8389</b>	<b>4.3696</b>	<b>17.2084</b>	<b>6.8081</b>	<b>4.0223</b>	<b>10.8304</b>	<b>0.0000</b>	<b>13,444.30 20</b>	<b>13,444.30 20</b>	<b>3.7801</b>	<b>0.0000</b>	<b>13,538.80 32</b>





NCPWF MR - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4938</b>	<b>61.5153</b>	<b>42.3261</b>	<b>0.0960</b>	<b>2.9120</b>	<b>1.9572</b>	<b>4.8692</b>	<b>0.7783</b>	<b>1.9555</b>	<b>2.7338</b>		<b>10,059.5348</b>	<b>10,059.5348</b>	<b>1.1023</b>	<b>0.0000</b>	<b>10,087.0916</b>

NCPWF MR - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4938</b>	<b>61.5153</b>	<b>42.3261</b>	<b>0.0960</b>	<b>2.9120</b>	<b>1.9572</b>	<b>4.8692</b>	<b>0.7783</b>	<b>1.9555</b>	<b>2.7338</b>		<b>10,059.5348</b>	<b>10,059.5348</b>	<b>1.1023</b>	<b>0.0000</b>	<b>10,087.0916</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

NCPWF MR - San Diego County APCD Air District, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mass Grading	Grading	5/21/2019	8/12/2019	5	60	
2	Finish Grading	Grading	8/13/2019	2/25/2020	5	141	
3	Building Construction	Building Construction	2/26/2020	4/22/2022	5	563	
4	Architectural Coating	Architectural Coating	5/7/2022	11/21/2022	5	141	
5	Paving	Paving	4/23/2022	5/6/2022	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,703; Non-Residential Outdoor: 161,234; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## NCPWF MR - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mass Grading	Excavators	1	8.00	158	0.38
Mass Grading	Graders	2	8.00	187	0.41
Mass Grading	Off-Highway Trucks	1	8.00	402	0.38
Mass Grading	Plate Compactors	2	8.00	8	0.43
Mass Grading	Rubber Tired Dozers	2	8.00	247	0.40
Mass Grading	Scrapers	4	8.00	367	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Finish Grading	Graders	1	8.00	187	0.41
Finish Grading	Off-Highway Trucks	1	8.00	402	0.38
Finish Grading	Plate Compactors	2	8.00	8	0.43
Finish Grading	Scrapers	1	8.00	367	0.48
Finish Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

NCPWF MR - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mass Grading	14	36.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Grading	7	18.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	136.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Mass Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.2155	0.0000	12.2155	6.6399	0.0000	6.6399			0.0000			0.0000
Off-Road	9.0201	104.0122	56.7763	0.1165		4.3462	4.3462		4.0001	4.0001		11,508.2688	11,508.2688	3.6264		11,598.927
<b>Total</b>	<b>9.0201</b>	<b>104.0122</b>	<b>56.7763</b>	<b>0.1165</b>	<b>12.2155</b>	<b>4.3462</b>	<b>16.5617</b>	<b>6.6399</b>	<b>4.0001</b>	<b>10.6399</b>		<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

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**3.2 Mass Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1628	5.6320	1.2157	0.0149	0.3276	0.0213	0.3489	0.0898	0.0203	0.1101		1,622.7613	1,622.7613	0.1436		1,626.3515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1414	0.0987	1.1139	3.1500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		313.2719	313.2719	0.0100		313.5220
<b>Total</b>	<b>0.3041</b>	<b>5.7306</b>	<b>2.3296</b>	<b>0.0180</b>	<b>0.6234</b>	<b>0.0234</b>	<b>0.6467</b>	<b>0.1682</b>	<b>0.0223</b>	<b>0.1905</b>		<b>1,936.0332</b>	<b>1,936.0332</b>	<b>0.1536</b>		<b>1,939.8735</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4970	0.0000	5.4970	2.9879	0.0000	2.9879			0.0000			0.0000
Off-Road	2.8364	55.3681	64.0120	0.1165		2.2371	2.2371		2.2371	2.2371	0.0000	11,508.2688	11,508.2688	3.6264		11,598.9297
<b>Total</b>	<b>2.8364</b>	<b>55.3681</b>	<b>64.0120</b>	<b>0.1165</b>	<b>5.4970</b>	<b>2.2371</b>	<b>7.7341</b>	<b>2.9879</b>	<b>2.2371</b>	<b>5.2250</b>	<b>0.0000</b>	<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.2 Mass Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1628	5.6320	1.2157	0.0149	0.3276	0.0213	0.3489	0.0898	0.0203	0.1101		1,622.7613	1,622.7613	0.1436		1,626.3515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1414	0.0987	1.1139	3.1500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		313.2719	313.2719	0.0100		313.5220
<b>Total</b>	<b>0.3041</b>	<b>5.7306</b>	<b>2.3296</b>	<b>0.0180</b>	<b>0.6234</b>	<b>0.0234</b>	<b>0.6467</b>	<b>0.1682</b>	<b>0.0223</b>	<b>0.1905</b>		<b>1,936.0332</b>	<b>1,936.0332</b>	<b>0.1536</b>		<b>1,939.8735</b>

**3.3 Finish Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0729	0.0000	0.0729	8.2600e-003	0.0000	8.2600e-003			0.0000			0.0000
Off-Road	2.8077	31.8604	18.9226	0.0422		1.3102	1.3102		1.2070	1.2070		4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>2.8077</b>	<b>31.8604</b>	<b>18.9226</b>	<b>0.0422</b>	<b>0.0729</b>	<b>1.3102</b>	<b>1.3831</b>	<b>8.2600e-003</b>	<b>1.2070</b>	<b>1.2152</b>		<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.3 Finish Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0693	2.3966	0.5173	6.3300e-003	0.1812	9.0400e-003	0.1902	0.0485	8.6500e-003	0.0571		690.5367	690.5367	0.0611		692.0645
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.0493	0.5569	1.5700e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		156.6359	156.6359	5.0000e-003		156.7610
<b>Total</b>	<b>0.1399</b>	<b>2.4459</b>	<b>1.0743</b>	<b>7.9000e-003</b>	<b>0.3291</b>	<b>0.0101</b>	<b>0.3392</b>	<b>0.0877</b>	<b>9.6200e-003</b>	<b>0.0973</b>		<b>847.1727</b>	<b>847.1727</b>	<b>0.0661</b>		<b>848.8255</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0328	0.0000	0.0328	3.7200e-003	0.0000	3.7200e-003			0.0000			0.0000
Off-Road	1.0103	20.0646	23.2829	0.0422		0.8726	0.8726		0.8726	0.8726	0.0000	4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>1.0103</b>	<b>20.0646</b>	<b>23.2829</b>	<b>0.0422</b>	<b>0.0328</b>	<b>0.8726</b>	<b>0.9054</b>	<b>3.7200e-003</b>	<b>0.8726</b>	<b>0.8763</b>	<b>0.0000</b>	<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>



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**3.3 Finish Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0693	2.3966	0.5173	6.3300e-003	0.1812	9.0400e-003	0.1902	0.0485	8.6500e-003	0.0571		690.5367	690.5367	0.0611		692.0645
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.0493	0.5569	1.5700e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		156.6359	156.6359	5.0000e-003		156.7610
<b>Total</b>	<b>0.1399</b>	<b>2.4459</b>	<b>1.0743</b>	<b>7.9000e-003</b>	<b>0.3291</b>	<b>0.0101</b>	<b>0.3392</b>	<b>0.0877</b>	<b>9.6200e-003</b>	<b>0.0973</b>		<b>847.1727</b>	<b>847.1727</b>	<b>0.0661</b>		<b>848.8255</b>

**3.3 Finish Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0729	0.0000	0.0729	8.2600e-003	0.0000	8.2600e-003			0.0000			0.0000
Off-Road	2.6311	29.1133	18.0635	0.0422		1.1767	1.1767		1.0842	1.0842		4,058.8516	4,058.8516	1.2976		4,091.2909
<b>Total</b>	<b>2.6311</b>	<b>29.1133</b>	<b>18.0635</b>	<b>0.0422</b>	<b>0.0729</b>	<b>1.1767</b>	<b>1.2496</b>	<b>8.2600e-003</b>	<b>1.0842</b>	<b>1.0924</b>		<b>4,058.8516</b>	<b>4,058.8516</b>	<b>1.2976</b>		<b>4,091.2909</b>

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**3.3 Finish Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0631	2.2258	0.5054	6.2500e-003	0.4058	7.1000e-003	0.4129	0.1036	6.7900e-003	0.1104		683.2394	683.2394	0.0602		684.7440
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.1291</b>	<b>2.2703</b>	<b>1.0156</b>	<b>7.7700e-003</b>	<b>0.5536</b>	<b>8.1400e-003</b>	<b>0.5618</b>	<b>0.1428</b>	<b>7.7500e-003</b>	<b>0.1506</b>		<b>834.9338</b>	<b>834.9338</b>	<b>0.0647</b>		<b>836.5517</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0328	0.0000	0.0328	3.7200e-003	0.0000	3.7200e-003			0.0000			0.0000
Off-Road	1.0103	20.0646	23.2829	0.0422		0.8726	0.8726		0.8726	0.8726	0.0000	4,058.8516	4,058.8516	1.2976		4,091.2909
<b>Total</b>	<b>1.0103</b>	<b>20.0646</b>	<b>23.2829</b>	<b>0.0422</b>	<b>0.0328</b>	<b>0.8726</b>	<b>0.9054</b>	<b>3.7200e-003</b>	<b>0.8726</b>	<b>0.8763</b>	<b>0.0000</b>	<b>4,058.8516</b>	<b>4,058.8516</b>	<b>1.2976</b>		<b>4,091.2909</b>

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**3.3 Finish Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0631	2.2258	0.5054	6.2500e-003	0.4058	7.1000e-003	0.4129	0.1036	6.7900e-003	0.1104		683.2394	683.2394	0.0602		684.7440
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.1291</b>	<b>2.2703</b>	<b>1.0156</b>	<b>7.7700e-003</b>	<b>0.5536</b>	<b>8.1400e-003</b>	<b>0.5618</b>	<b>0.1428</b>	<b>7.7500e-003</b>	<b>0.1506</b>		<b>834.9338</b>	<b>834.9338</b>	<b>0.0647</b>		<b>836.5517</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7935	26.1806	20.6600	0.0345		1.3719	1.3719		1.2760	1.2760		3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>2.7935</b>	<b>26.1806</b>	<b>20.6600</b>	<b>0.0345</b>		<b>1.3719</b>	<b>1.3719</b>		<b>1.2760</b>	<b>1.2760</b>		<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2018	6.0889	1.5512	0.0148	0.3656	0.0298	0.3954	0.1052	0.0285	0.1337		1,587.8164	1,587.8164	0.1171		1,590.7448
Worker	0.4991	0.3363	3.8550	0.0115	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,146.1360	1,146.1360	0.0342		1,146.9916
<b>Total</b>	<b>0.7009</b>	<b>6.4252</b>	<b>5.4063</b>	<b>0.0263</b>	<b>1.4828</b>	<b>0.0376</b>	<b>1.5204</b>	<b>0.4016</b>	<b>0.0357</b>	<b>0.4373</b>		<b>2,733.9524</b>	<b>2,733.9524</b>	<b>0.1514</b>		<b>2,737.7363</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2018	6.0889	1.5512	0.0148	0.3656	0.0298	0.3954	0.1052	0.0285	0.1337		1,587.8164	1,587.8164	0.1171		1,590.7448
Worker	0.4991	0.3363	3.8550	0.0115	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,146.1360	1,146.1360	0.0342		1,146.9916
<b>Total</b>	<b>0.7009</b>	<b>6.4252</b>	<b>5.4063</b>	<b>0.0263</b>	<b>1.4828</b>	<b>0.0376</b>	<b>1.5204</b>	<b>0.4016</b>	<b>0.0357</b>	<b>0.4373</b>		<b>2,733.9524</b>	<b>2,733.9524</b>	<b>0.1514</b>		<b>2,737.7363</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5183	23.9160	20.2085	0.0345		1.1911	1.1911		1.1077	1.1077		3,263.7123	3,263.7123	0.9754		3,288.0967
<b>Total</b>	<b>2.5183</b>	<b>23.9160</b>	<b>20.2085</b>	<b>0.0345</b>		<b>1.1911</b>	<b>1.1911</b>		<b>1.1077</b>	<b>1.1077</b>		<b>3,263.7123</b>	<b>3,263.7123</b>	<b>0.9754</b>		<b>3,288.0967</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1633	5.4988	1.4013	0.0146	0.3656	0.0116	0.3771	0.1052	0.0110	0.1163		1,573.3005	1,573.3005	0.1124		1,576.1109
Worker	0.4704	0.3056	3.6072	0.0111	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,107.6396	1,107.6396	0.0316		1,108.4299
<b>Total</b>	<b>0.6337</b>	<b>5.8044</b>	<b>5.0085</b>	<b>0.0257</b>	<b>1.4828</b>	<b>0.0193</b>	<b>1.5020</b>	<b>0.4016</b>	<b>0.0182</b>	<b>0.4197</b>		<b>2,680.9401</b>	<b>2,680.9401</b>	<b>0.1440</b>		<b>2,684.5408</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.7123	3,263.7123	0.9754		3,288.0967
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.7123</b>	<b>3,263.7123</b>	<b>0.9754</b>		<b>3,288.0967</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1633	5.4988	1.4013	0.0146	0.3656	0.0116	0.3771	0.1052	0.0110	0.1163		1,573.3005	1,573.3005	0.1124		1,576.1109
Worker	0.4704	0.3056	3.6072	0.0111	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,107.6396	1,107.6396	0.0316		1,108.4299
<b>Total</b>	<b>0.6337</b>	<b>5.8044</b>	<b>5.0085</b>	<b>0.0257</b>	<b>1.4828</b>	<b>0.0193</b>	<b>1.5020</b>	<b>0.4016</b>	<b>0.0182</b>	<b>0.4197</b>		<b>2,680.9401</b>	<b>2,680.9401</b>	<b>0.1440</b>		<b>2,684.5408</b>

**3.4 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2608	21.3278	19.8684	0.0345		1.0150	1.0150		0.9440	0.9440		3,264.6031	3,264.6031	0.9713		3,288.8852
<b>Total</b>	<b>2.2608</b>	<b>21.3278</b>	<b>19.8684</b>	<b>0.0345</b>		<b>1.0150</b>	<b>1.0150</b>		<b>0.9440</b>	<b>0.9440</b>		<b>3,264.6031</b>	<b>3,264.6031</b>	<b>0.9713</b>		<b>3,288.8852</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1519	5.1966	1.3272	0.0145	0.3656	9.9400e-003	0.3755	0.1052	9.5000e-003	0.1147		1,558.5144	1,558.5144	0.1090		1,561.2388
Worker	0.4447	0.2787	3.3543	0.0107	1.1172	7.5500e-003	1.1248	0.2963	6.9500e-003	0.3033		1,067.0013	1,067.0013	0.0290		1,067.7257
<b>Total</b>	<b>0.5966</b>	<b>5.4753</b>	<b>4.6815</b>	<b>0.0252</b>	<b>1.4828</b>	<b>0.0175</b>	<b>1.5003</b>	<b>0.4016</b>	<b>0.0165</b>	<b>0.4180</b>		<b>2,625.5156</b>	<b>2,625.5156</b>	<b>0.1380</b>		<b>2,628.9645</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,264.6030	3,264.6030	0.9713		3,288.8852
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,264.6030</b>	<b>3,264.6030</b>	<b>0.9713</b>		<b>3,288.8852</b>



NCPWF MR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1519	5.1966	1.3272	0.0145	0.3656	9.9400e-003	0.3755	0.1052	9.5000e-003	0.1147		1,558.5144	1,558.5144	0.1090		1,561.2388
Worker	0.4447	0.2787	3.3543	0.0107	1.1172	7.5500e-003	1.1248	0.2963	6.9500e-003	0.3033		1,067.0013	1,067.0013	0.0290		1,067.7257
<b>Total</b>	<b>0.5966</b>	<b>5.4753</b>	<b>4.6815</b>	<b>0.0252</b>	<b>1.4828</b>	<b>0.0175</b>	<b>1.5003</b>	<b>0.4016</b>	<b>0.0165</b>	<b>0.4180</b>		<b>2,625.5156</b>	<b>2,625.5156</b>	<b>0.1380</b>		<b>2,628.9645</b>

**3.5 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.2006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0361	0.5603	1.0940	1.6800e-003		0.0104	0.0104		9.5700e-003	9.5700e-003		162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>21.2367</b>	<b>0.5603</b>	<b>1.0940</b>	<b>1.6800e-003</b>		<b>0.0104</b>	<b>0.0104</b>		<b>9.5700e-003</b>	<b>9.5700e-003</b>		<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.5 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0574	0.6906	2.2000e-003	0.2300	1.5500e-003	0.2316	0.0610	1.4300e-003	0.0624		219.6767	219.6767	5.9700e-003		219.8259
<b>Total</b>	<b>0.0916</b>	<b>0.0574</b>	<b>0.6906</b>	<b>2.2000e-003</b>	<b>0.2300</b>	<b>1.5500e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.6767</b>	<b>219.6767</b>	<b>5.9700e-003</b>		<b>219.8259</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.2006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0413	0.9438	1.2745	1.6800e-003		0.0661	0.0661		0.0661	0.0661	0.0000	162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>21.2419</b>	<b>0.9438</b>	<b>1.2745</b>	<b>1.6800e-003</b>		<b>0.0661</b>	<b>0.0661</b>		<b>0.0661</b>	<b>0.0661</b>	<b>0.0000</b>	<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.5 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0574	0.6906	2.2000e-003	0.2300	1.5500e-003	0.2316	0.0610	1.4300e-003	0.0624		219.6767	219.6767	5.9700e-003		219.8259
<b>Total</b>	<b>0.0916</b>	<b>0.0574</b>	<b>0.6906</b>	<b>2.2000e-003</b>	<b>0.2300</b>	<b>1.5500e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.6767</b>	<b>219.6767</b>	<b>5.9700e-003</b>		<b>219.8259</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2619	19.9772	24.2003	0.0452		0.9894	0.9894		0.9247	0.9247		4,359.1852	4,359.1852	1.2382		4,390.1400
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2619</b>	<b>19.9772</b>	<b>24.2003</b>	<b>0.0452</b>		<b>0.9894</b>	<b>0.9894</b>		<b>0.9247</b>	<b>0.9247</b>		<b>4,359.1852</b>	<b>4,359.1852</b>	<b>1.2382</b>		<b>4,390.1400</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0492	0.5919	1.8900e-003	0.1972	1.3300e-003	0.1985	0.0523	1.2300e-003	0.0535		188.2943	188.2943	5.1100e-003		188.4222
<b>Total</b>	<b>0.0785</b>	<b>0.0492</b>	<b>0.5919</b>	<b>1.8900e-003</b>	<b>0.1972</b>	<b>1.3300e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2300e-003</b>	<b>0.0535</b>		<b>188.2943</b>	<b>188.2943</b>	<b>5.1100e-003</b>		<b>188.4222</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0759	22.2742	30.2103	0.0452		1.2201	1.2201		1.2201	1.2201	0.0000	4,359.1852	4,359.1852	1.2382		4,390.1400
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0759</b>	<b>22.2742</b>	<b>30.2103</b>	<b>0.0452</b>		<b>1.2201</b>	<b>1.2201</b>		<b>1.2201</b>	<b>1.2201</b>	<b>0.0000</b>	<b>4,359.1852</b>	<b>4,359.1852</b>	<b>1.2382</b>		<b>4,390.1400</b>

NCPWF MR - San Diego County APCD Air District, Summer

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0492	0.5919	1.8900e-003	0.1972	1.3300e-003	0.1985	0.0523	1.2300e-003	0.0535		188.2943	188.2943	5.1100e-003		188.4222
<b>Total</b>	<b>0.0785</b>	<b>0.0492</b>	<b>0.5919</b>	<b>1.8900e-003</b>	<b>0.1972</b>	<b>1.3300e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2300e-003</b>	<b>0.0535</b>		<b>188.2943</b>	<b>188.2943</b>	<b>5.1100e-003</b>		<b>188.4222</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF MR - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634
Unmitigated	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	32.25	201.68	322.47	416,990	416,990
Total	32.25	201.68	322.47	416,990	416,990

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

NCPWF MR - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

NCPWF MR - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Unmitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>

NCPWF MR - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF MR - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	8	50	1000	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>13.1285</b>	<b>58.7100</b>	<b>33.4750</b>	<b>0.0631</b>		<b>1.9313</b>	<b>1.9313</b>		<b>1.9313</b>	<b>1.9313</b>		<b>6,716.1130</b>	<b>6,716.1130</b>	<b>0.9416</b>		<b>6,739.6530</b>

**11.0 Vegetation**

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NCPWF MR - San Diego County APCD Air District, Winter

**NCPWF MR**

**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	322.47	1000sqft	7.40	322,468.42	37

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

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On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - See section 7.2.2 for additional information on the emergency generator.

Stationary Sources - Process Boilers - No stationary sources.

NCPWF MR - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	300.00	8.50
tblGrading	AcresOfGrading	211.50	8.50
tblGrading	MaterialExported	0.00	9,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	BuildingSpaceSquareFeet	322,470.00	322,468.42
tblLandUse	LandUseSquareFeet	322,470.00	322,468.42
tblLandUse	Population	0.00	37.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	399.86	21.45

## NCPWF MR - San Diego County APCD Air District, Winter

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,000.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	8.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	53.00	54.00
tblTripsAndVMT	WorkerTripNumber	35.00	36.00
tblTripsAndVMT	WorkerTripNumber	135.00	136.00
tblTripsAndVMT	WorkerTripNumber	27.00	28.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.63
tblVehicleTrips	SU_TR	0.68	1.00
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	74,571,187.50	769,600.00

## 2.0 Emissions Summary

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NCPWF MR - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	9.3473	109.8127	59.1318	0.1341	12.8389	4.3701	17.2089	6.8081	4.0228	10.8309	0.0000	13,397.8119	13,397.8119	3.7847	0.0000	13,492.4301
2020	3.5700	32.6421	26.0160	0.0597	1.4828	1.4101	2.8929	0.4016	1.3123	1.7139	0.0000	5,886.3414	5,886.3414	1.3641	0.0000	5,914.8284
2021	3.2239	29.7433	25.1596	0.0592	1.4828	1.2109	2.6936	0.4016	1.1263	1.5278	0.0000	5,836.1212	5,836.1212	1.1247	0.0000	5,864.2374
2022	21.3407	26.8195	24.7556	0.0587	1.4828	1.0329	2.5156	0.4016	0.9609	1.3624	0.0000	5,784.2320	5,784.2320	1.2430	0.0000	5,812.0874
<b>Maximum</b>	<b>21.3407</b>	<b>109.8127</b>	<b>59.1318</b>	<b>0.1341</b>	<b>12.8389</b>	<b>4.3701</b>	<b>17.2089</b>	<b>6.8081</b>	<b>4.0228</b>	<b>10.8309</b>	<b>0.0000</b>	<b>13,397.8119</b>	<b>13,397.8119</b>	<b>3.7847</b>	<b>0.0000</b>	<b>13,492.4301</b>



NCPWF MR - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4756</b>	<b>61.6139</b>	<b>41.9738</b>	<b>0.0943</b>	<b>2.9120</b>	<b>1.9573</b>	<b>4.8693</b>	<b>0.7783</b>	<b>1.9556</b>	<b>2.7339</b>		<b>9,890.2790</b>	<b>9,890.2790</b>	<b>1.1013</b>	<b>0.0000</b>	<b>9,917.8118</b>

NCPWF MR - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4756</b>	<b>61.6139</b>	<b>41.9738</b>	<b>0.0943</b>	<b>2.9120</b>	<b>1.9573</b>	<b>4.8693</b>	<b>0.7783</b>	<b>1.9556</b>	<b>2.7339</b>		<b>9,890.2790</b>	<b>9,890.2790</b>	<b>1.1013</b>	<b>0.0000</b>	<b>9,917.8118</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

NCPWF MR - San Diego County APCD Air District, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mass Grading	Grading	5/21/2019	8/12/2019	5	60	
2	Finish Grading	Grading	8/13/2019	2/25/2020	5	141	
3	Building Construction	Building Construction	2/26/2020	4/22/2022	5	563	
4	Architectural Coating	Architectural Coating	5/7/2022	11/21/2022	5	141	
5	Paving	Paving	4/23/2022	5/6/2022	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,703; Non-Residential Outdoor: 161,234; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## NCPWF MR - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mass Grading	Excavators	1	8.00	158	0.38
Mass Grading	Graders	2	8.00	187	0.41
Mass Grading	Off-Highway Trucks	1	8.00	402	0.38
Mass Grading	Plate Compactors	2	8.00	8	0.43
Mass Grading	Rubber Tired Dozers	2	8.00	247	0.40
Mass Grading	Scrapers	4	8.00	367	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Finish Grading	Graders	1	8.00	187	0.41
Finish Grading	Off-Highway Trucks	1	8.00	402	0.38
Finish Grading	Plate Compactors	2	8.00	8	0.43
Finish Grading	Scrapers	1	8.00	367	0.48
Finish Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Aerial Lifts	1	8.00	63	0.31
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

NCPWF MR - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mass Grading	14	36.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Grading	7	18.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	136.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Mass Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.2155	0.0000	12.2155	6.6399	0.0000	6.6399			0.0000			0.0000
Off-Road	9.0201	104.0122	56.7763	0.1165		4.3462	4.3462		4.0001	4.0001		11,508.268	11,508.268	3.6264		11,598.929
<b>Total</b>	<b>9.0201</b>	<b>104.0122</b>	<b>56.7763</b>	<b>0.1165</b>	<b>12.2155</b>	<b>4.3462</b>	<b>16.5617</b>	<b>6.6399</b>	<b>4.0001</b>	<b>10.6399</b>		<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

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**3.2 Mass Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1673	5.6897	1.3029	0.0146	0.3276	0.0218	0.3494	0.0898	0.0208	0.1106		1,595.454 1	1,595.454 1	0.1488		1,599.174 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1599	0.1108	1.0526	2.9500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		294.0890	294.0890	9.4900e-003		294.3262
<b>Total</b>	<b>0.3272</b>	<b>5.8005</b>	<b>2.3555</b>	<b>0.0176</b>	<b>0.6234</b>	<b>0.0239</b>	<b>0.6472</b>	<b>0.1682</b>	<b>0.0228</b>	<b>0.1910</b>		<b>1,889.543 0</b>	<b>1,889.543 0</b>	<b>0.1583</b>		<b>1,893.500 4</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4970	0.0000	5.4970	2.9879	0.0000	2.9879			0.0000			0.0000
Off-Road	2.8364	55.3681	64.0120	0.1165		2.2371	2.2371		2.2371	2.2371	0.0000	11,508.268 8	11,508.268 8	3.6264		11,598.929 7
<b>Total</b>	<b>2.8364</b>	<b>55.3681</b>	<b>64.0120</b>	<b>0.1165</b>	<b>5.4970</b>	<b>2.2371</b>	<b>7.7341</b>	<b>2.9879</b>	<b>2.2371</b>	<b>5.2250</b>	<b>0.0000</b>	<b>11,508.26 88</b>	<b>11,508.26 88</b>	<b>3.6264</b>		<b>11,598.92 97</b>



NCPWF MR - San Diego County APCD Air District, Winter

**3.2 Mass Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1673	5.6897	1.3029	0.0146	0.3276	0.0218	0.3494	0.0898	0.0208	0.1106		1,595.454 1	1,595.454 1	0.1488		1,599.174 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1599	0.1108	1.0526	2.9500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		294.0890	294.0890	9.4900e-003		294.3262
<b>Total</b>	<b>0.3272</b>	<b>5.8005</b>	<b>2.3555</b>	<b>0.0176</b>	<b>0.6234</b>	<b>0.0239</b>	<b>0.6472</b>	<b>0.1682</b>	<b>0.0228</b>	<b>0.1910</b>		<b>1,889.543 0</b>	<b>1,889.543 0</b>	<b>0.1583</b>		<b>1,893.500 4</b>

**3.3 Finish Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0729	0.0000	0.0729	8.2600e-003	0.0000	8.2600e-003			0.0000			0.0000
Off-Road	2.8077	31.8604	18.9226	0.0422		1.3102	1.3102		1.2070	1.2070		4,149.215 7	4,149.215 7	1.2981		4,181.668 4
<b>Total</b>	<b>2.8077</b>	<b>31.8604</b>	<b>18.9226</b>	<b>0.0422</b>	<b>0.0729</b>	<b>1.3102</b>	<b>1.3831</b>	<b>8.2600e-003</b>	<b>1.2070</b>	<b>1.2152</b>		<b>4,149.215 7</b>	<b>4,149.215 7</b>	<b>1.2981</b>		<b>4,181.668 4</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.3 Finish Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0712	2.4212	0.5544	6.2200e-003	0.1812	9.2600e-003	0.1905	0.0485	8.8500e-003	0.0573		678.9166	678.9166	0.0633		680.4997
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
<b>Total</b>	<b>0.1511</b>	<b>2.4765</b>	<b>1.0807</b>	<b>7.7000e-003</b>	<b>0.3291</b>	<b>0.0103</b>	<b>0.3394</b>	<b>0.0877</b>	<b>9.8200e-003</b>	<b>0.0975</b>		<b>825.9611</b>	<b>825.9611</b>	<b>0.0681</b>		<b>827.6628</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0328	0.0000	0.0328	3.7200e-003	0.0000	3.7200e-003			0.0000			0.0000
Off-Road	1.0103	20.0646	23.2829	0.0422		0.8726	0.8726		0.8726	0.8726	0.0000	4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>1.0103</b>	<b>20.0646</b>	<b>23.2829</b>	<b>0.0422</b>	<b>0.0328</b>	<b>0.8726</b>	<b>0.9054</b>	<b>3.7200e-003</b>	<b>0.8726</b>	<b>0.8763</b>	<b>0.0000</b>	<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.3 Finish Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0712	2.4212	0.5544	6.2200e-003	0.1812	9.2600e-003	0.1905	0.0485	8.8500e-003	0.0573		678.9166	678.9166	0.0633		680.4997
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
<b>Total</b>	<b>0.1511</b>	<b>2.4765</b>	<b>1.0807</b>	<b>7.7000e-003</b>	<b>0.3291</b>	<b>0.0103</b>	<b>0.3394</b>	<b>0.0877</b>	<b>9.8200e-003</b>	<b>0.0975</b>		<b>825.9611</b>	<b>825.9611</b>	<b>0.0681</b>		<b>827.6628</b>

**3.3 Finish Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0729	0.0000	0.0729	8.2600e-003	0.0000	8.2600e-003			0.0000			0.0000
Off-Road	2.6311	29.1133	18.0635	0.0422		1.1767	1.1767		1.0842	1.0842		4,058.8516	4,058.8516	1.2976		4,091.2909
<b>Total</b>	<b>2.6311</b>	<b>29.1133</b>	<b>18.0635</b>	<b>0.0422</b>	<b>0.0729</b>	<b>1.1767</b>	<b>1.2496</b>	<b>8.2600e-003</b>	<b>1.0842</b>	<b>1.0924</b>		<b>4,058.8516</b>	<b>4,058.8516</b>	<b>1.2976</b>		<b>4,091.2909</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.3 Finish Grading - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0648	2.2472	0.5388	6.1400e-003	0.4058	7.2500e-003	0.4130	0.1036	6.9400e-003	0.1105		671.5176	671.5176	0.0622		673.0738
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.1396</b>	<b>2.2972</b>	<b>1.0198</b>	<b>7.5700e-003</b>	<b>0.5536</b>	<b>8.2900e-003</b>	<b>0.5619</b>	<b>0.1428</b>	<b>7.9000e-003</b>	<b>0.1507</b>		<b>813.9214</b>	<b>813.9214</b>	<b>0.0665</b>		<b>815.5847</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0328	0.0000	0.0328	3.7200e-003	0.0000	3.7200e-003			0.0000			0.0000
Off-Road	1.0103	20.0646	23.2829	0.0422		0.8726	0.8726		0.8726	0.8726	0.0000	4,058.8516	4,058.8516	1.2976		4,091.2909
<b>Total</b>	<b>1.0103</b>	<b>20.0646</b>	<b>23.2829</b>	<b>0.0422</b>	<b>0.0328</b>	<b>0.8726</b>	<b>0.9054</b>	<b>3.7200e-003</b>	<b>0.8726</b>	<b>0.8763</b>	<b>0.0000</b>	<b>4,058.8516</b>	<b>4,058.8516</b>	<b>1.2976</b>		<b>4,091.2909</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.3 Finish Grading - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0648	2.2472	0.5388	6.1400e-003	0.4058	7.2500e-003	0.4130	0.1036	6.9400e-003	0.1105		671.5176	671.5176	0.0622		673.0738
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.1396</b>	<b>2.2972</b>	<b>1.0198</b>	<b>7.5700e-003</b>	<b>0.5536</b>	<b>8.2900e-003</b>	<b>0.5619</b>	<b>0.1428</b>	<b>7.9000e-003</b>	<b>0.1507</b>		<b>813.9214</b>	<b>813.9214</b>	<b>0.0665</b>		<b>815.5847</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7935	26.1806	20.6600	0.0345		1.3719	1.3719		1.2760	1.2760		3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>2.7935</b>	<b>26.1806</b>	<b>20.6600</b>	<b>0.0345</b>		<b>1.3719</b>	<b>1.3719</b>		<b>1.2760</b>	<b>1.2760</b>		<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2113	6.0840	1.7215	0.0144	0.3656	0.0304	0.3959	0.1052	0.0290	0.1343		1,546.8960	1,546.8960	0.1245		1,550.0078
Worker	0.5652	0.3775	3.6346	0.0108	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,075.9395	1,075.9395	0.0324		1,076.7493
<b>Total</b>	<b>0.7766</b>	<b>6.4616</b>	<b>5.3561</b>	<b>0.0252</b>	<b>1.4828</b>	<b>0.0382</b>	<b>1.5210</b>	<b>0.4016</b>	<b>0.0363</b>	<b>0.4378</b>		<b>2,622.8354</b>	<b>2,622.8354</b>	<b>0.1569</b>		<b>2,626.7571</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2113	6.0840	1.7215	0.0144	0.3656	0.0304	0.3959	0.1052	0.0290	0.1343		1,546.8960	1,546.8960	0.1245		1,550.0078
Worker	0.5652	0.3775	3.6346	0.0108	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,075.9395	1,075.9395	0.0324		1,076.7493
<b>Total</b>	<b>0.7766</b>	<b>6.4616</b>	<b>5.3561</b>	<b>0.0252</b>	<b>1.4828</b>	<b>0.0382</b>	<b>1.5210</b>	<b>0.4016</b>	<b>0.0363</b>	<b>0.4378</b>		<b>2,622.8354</b>	<b>2,622.8354</b>	<b>0.1569</b>		<b>2,626.7571</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5183	23.9160	20.2085	0.0345		1.1911	1.1911		1.1077	1.1077		3,263.7123	3,263.7123	0.9754		3,288.0967
<b>Total</b>	<b>2.5183</b>	<b>23.9160</b>	<b>20.2085</b>	<b>0.0345</b>		<b>1.1911</b>	<b>1.1911</b>		<b>1.1077</b>	<b>1.1077</b>		<b>3,263.7123</b>	<b>3,263.7123</b>	<b>0.9754</b>		<b>3,288.0967</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1721	5.4842	1.5603	0.0143	0.3656	0.0120	0.3776	0.1052	0.0115	0.1167		1,532.624 2	1,532.624 2	0.1194		1,535.609 1
Worker	0.5335	0.3431	3.3908	0.0104	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,039.784 7	1,039.784 7	0.0299		1,040.531 5
<b>Total</b>	<b>0.7056</b>	<b>5.8272</b>	<b>4.9511</b>	<b>0.0247</b>	<b>1.4828</b>	<b>0.0197</b>	<b>1.5025</b>	<b>0.4016</b>	<b>0.0186</b>	<b>0.4202</b>		<b>2,572.408 9</b>	<b>2,572.408 9</b>	<b>0.1493</b>		<b>2,576.140 6</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.712 3	3,263.712 3	0.9754		3,288.096 7
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.712 3</b>	<b>3,263.712 3</b>	<b>0.9754</b>		<b>3,288.096 7</b>



NCPWF MR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1721	5.4842	1.5603	0.0143	0.3656	0.0120	0.3776	0.1052	0.0115	0.1167		1,532.624 2	1,532.624 2	0.1194		1,535.609 1
Worker	0.5335	0.3431	3.3908	0.0104	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,039.784 7	1,039.784 7	0.0299		1,040.531 5
<b>Total</b>	<b>0.7056</b>	<b>5.8272</b>	<b>4.9511</b>	<b>0.0247</b>	<b>1.4828</b>	<b>0.0197</b>	<b>1.5025</b>	<b>0.4016</b>	<b>0.0186</b>	<b>0.4202</b>		<b>2,572.408 9</b>	<b>2,572.408 9</b>	<b>0.1493</b>		<b>2,576.140 6</b>

**3.4 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2608	21.3278	19.8684	0.0345		1.0150	1.0150		0.9440	0.9440		3,264.603 1	3,264.603 1	0.9713		3,288.885 2
<b>Total</b>	<b>2.2608</b>	<b>21.3278</b>	<b>19.8684</b>	<b>0.0345</b>		<b>1.0150</b>	<b>1.0150</b>		<b>0.9440</b>	<b>0.9440</b>		<b>3,264.603 1</b>	<b>3,264.603 1</b>	<b>0.9713</b>		<b>3,288.885 2</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1601	5.1790	1.4773	0.0141	0.3656	0.0104	0.3759	0.1052	9.9000e-003	0.1151		1,517.9541	1,517.9541	0.1156		1,520.8437
Worker	0.5055	0.3128	3.1464	0.0101	1.1172	7.5500e-003	1.1248	0.2963	6.9500e-003	0.3033		1,001.6748	1,001.6748	0.0274		1,002.3585
<b>Total</b>	<b>0.6656</b>	<b>5.4917</b>	<b>4.6237</b>	<b>0.0241</b>	<b>1.4828</b>	<b>0.0179</b>	<b>1.5007</b>	<b>0.4016</b>	<b>0.0169</b>	<b>0.4184</b>		<b>2,519.6289</b>	<b>2,519.6289</b>	<b>0.1429</b>		<b>2,523.2023</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,264.6030	3,264.6030	0.9713		3,288.8852
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,264.6030</b>	<b>3,264.6030</b>	<b>0.9713</b>		<b>3,288.8852</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1601	5.1790	1.4773	0.0141	0.3656	0.0104	0.3759	0.1052	9.9000e-003	0.1151		1,517.9541	1,517.9541	0.1156		1,520.8437
Worker	0.5055	0.3128	3.1464	0.0101	1.1172	7.5500e-003	1.1248	0.2963	6.9500e-003	0.3033		1,001.6748	1,001.6748	0.0274		1,002.3585
<b>Total</b>	<b>0.6656</b>	<b>5.4917</b>	<b>4.6237</b>	<b>0.0241</b>	<b>1.4828</b>	<b>0.0179</b>	<b>1.5007</b>	<b>0.4016</b>	<b>0.0169</b>	<b>0.4184</b>		<b>2,519.6289</b>	<b>2,519.6289</b>	<b>0.1429</b>		<b>2,523.2023</b>

**3.5 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.2006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0361	0.5603	1.0940	1.6800e-003		0.0104	0.0104		9.5700e-003	9.5700e-003		162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>21.2367</b>	<b>0.5603</b>	<b>1.0940</b>	<b>1.6800e-003</b>		<b>0.0104</b>	<b>0.0104</b>		<b>9.5700e-003</b>	<b>9.5700e-003</b>		<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.5 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1041	0.0644	0.6478	2.0700e-003	0.2300	1.5500e-003	0.2316	0.0610	1.4300e-003	0.0624		206.2272	206.2272	5.6300e-003		206.3679
<b>Total</b>	<b>0.1041</b>	<b>0.0644</b>	<b>0.6478</b>	<b>2.0700e-003</b>	<b>0.2300</b>	<b>1.5500e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>206.2272</b>	<b>206.2272</b>	<b>5.6300e-003</b>		<b>206.3679</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.2006					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0413	0.9438	1.2745	1.6800e-003		0.0661	0.0661		0.0661	0.0661	0.0000	162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>21.2419</b>	<b>0.9438</b>	<b>1.2745</b>	<b>1.6800e-003</b>		<b>0.0661</b>	<b>0.0661</b>		<b>0.0661</b>	<b>0.0661</b>	<b>0.0000</b>	<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.5 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1041	0.0644	0.6478	2.0700e-003	0.2300	1.5500e-003	0.2316	0.0610	1.4300e-003	0.0624		206.2272	206.2272	5.6300e-003		206.3679
<b>Total</b>	<b>0.1041</b>	<b>0.0644</b>	<b>0.6478</b>	<b>2.0700e-003</b>	<b>0.2300</b>	<b>1.5500e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>206.2272</b>	<b>206.2272</b>	<b>5.6300e-003</b>		<b>206.3679</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2619	19.9772	24.2003	0.0452		0.9894	0.9894		0.9247	0.9247		4,359.1852	4,359.1852	1.2382		4,390.1400
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.2619</b>	<b>19.9772</b>	<b>24.2003</b>	<b>0.0452</b>		<b>0.9894</b>	<b>0.9894</b>		<b>0.9247</b>	<b>0.9247</b>		<b>4,359.1852</b>	<b>4,359.1852</b>	<b>1.2382</b>		<b>4,390.1400</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0552	0.5552	1.7700e-003	0.1972	1.3300e-003	0.1985	0.0523	1.2300e-003	0.0535		176.7661	176.7661	4.8300e-003		176.8868
<b>Total</b>	<b>0.0892</b>	<b>0.0552</b>	<b>0.5552</b>	<b>1.7700e-003</b>	<b>0.1972</b>	<b>1.3300e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2300e-003</b>	<b>0.0535</b>		<b>176.7661</b>	<b>176.7661</b>	<b>4.8300e-003</b>		<b>176.8868</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0759	22.2742	30.2103	0.0452		1.2201	1.2201		1.2201	1.2201	0.0000	4,359.1852	4,359.1852	1.2382		4,390.1400
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0759</b>	<b>22.2742</b>	<b>30.2103</b>	<b>0.0452</b>		<b>1.2201</b>	<b>1.2201</b>		<b>1.2201</b>	<b>1.2201</b>	<b>0.0000</b>	<b>4,359.1852</b>	<b>4,359.1852</b>	<b>1.2382</b>		<b>4,390.1400</b>

NCPWF MR - San Diego County APCD Air District, Winter

**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0552	0.5552	1.7700e-003	0.1972	1.3300e-003	0.1985	0.0523	1.2300e-003	0.0535		176.7661	176.7661	4.8300e-003		176.8868
<b>Total</b>	<b>0.0892</b>	<b>0.0552</b>	<b>0.5552</b>	<b>1.7700e-003</b>	<b>0.1972</b>	<b>1.3300e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2300e-003</b>	<b>0.0535</b>		<b>176.7661</b>	<b>176.7661</b>	<b>4.8300e-003</b>		<b>176.8868</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF MR - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836
Unmitigated	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	32.25	201.68	322.47	416,990	416,990
Total	32.25	201.68	322.47	416,990	416,990

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



NCPWF MR - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

NCPWF MR - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Unmitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>

NCPWF MR - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF MR - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	8	50	1000	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>13.1285</b>	<b>58.7100</b>	<b>33.4750</b>	<b>0.0631</b>		<b>1.9313</b>	<b>1.9313</b>		<b>1.9313</b>	<b>1.9313</b>		<b>6,716.1130</b>	<b>6,716.1130</b>	<b>0.9416</b>		<b>6,739.6530</b>

**11.0 Vegetation**

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**NCPWF Pipeline-Open Trench**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	320.54	1000sqft	7.36	320,535.24	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.







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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblOffRoadEquipment	PhaseName		Tunneling
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	397.47	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,537.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	74,124,875.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0693	0.6169	0.4900	1.0200e-003	0.0302	0.0312	0.0613	6.7200e-003	0.0293	0.0361	0.0000	92.1053	92.1053	0.0206	0.0000	92.6191
2019	0.4878	4.2617	3.5616	7.6300e-003	0.0694	0.2085	0.2779	0.0175	0.1974	0.2149	0.0000	677.6122	677.6122	0.1532	0.0000	681.4413
2020	0.4091	3.7641	3.2287	5.9500e-003	0.0333	0.1956	0.2290	8.8500e-003	0.1838	0.1926	0.0000	517.3154	517.3154	0.1274	0.0000	520.5000
2021	0.2731	2.4184	2.4939	4.6700e-003	0.0273	0.1262	0.1535	7.2400e-003	0.1181	0.1253	0.0000	409.4421	409.4421	0.1068	0.0000	412.1115
<b>Maximum</b>	<b>0.4878</b>	<b>4.2617</b>	<b>3.5616</b>	<b>7.6300e-003</b>	<b>0.0694</b>	<b>0.2085</b>	<b>0.2779</b>	<b>0.0175</b>	<b>0.1974</b>	<b>0.2149</b>	<b>0.0000</b>	<b>677.6122</b>	<b>677.6122</b>	<b>0.1532</b>	<b>0.0000</b>	<b>681.4413</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0250	0.4770	0.5513	1.0200e-003	0.0261	0.0229	0.0490	6.2100e-003	0.0229	0.0291	0.0000	92.1052	92.1052	0.0206	0.0000	92.6190
2019	0.1901	3.5757	4.2110	7.6300e-003	0.0653	0.1780	0.2432	0.0170	0.1779	0.1949	0.0000	677.6115	677.6115	0.1532	0.0000	681.4406
2020	0.1512	2.7734	3.8156	5.9500e-003	0.0333	0.1491	0.1824	8.8500e-003	0.1491	0.1579	0.0000	517.3148	517.3148	0.1274	0.0000	520.4994
2021	0.1151	2.1922	3.0019	4.6700e-003	0.0273	0.1227	0.1500	7.2400e-003	0.1227	0.1300	0.0000	409.4416	409.4416	0.1068	0.0000	412.1110
<b>Maximum</b>	<b>0.1901</b>	<b>3.5757</b>	<b>4.2110</b>	<b>7.6300e-003</b>	<b>0.0653</b>	<b>0.1780</b>	<b>0.2432</b>	<b>0.0170</b>	<b>0.1779</b>	<b>0.1949</b>	<b>0.0000</b>	<b>677.6115</b>	<b>677.6115</b>	<b>0.1532</b>	<b>0.0000</b>	<b>681.4406</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>61.16</b>	<b>18.47</b>	<b>-18.47</b>	<b>0.00</b>	<b>5.12</b>	<b>15.82</b>	<b>13.45</b>	<b>2.51</b>	<b>10.60</b>	<b>10.03</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-14-2018	2-13-2019	1.2602	0.9655
2	2-14-2019	5-13-2019	1.1486	0.9285
3	5-14-2019	8-13-2019	1.1860	0.9585
4	8-14-2019	11-13-2019	0.0902	0.0729
10	2-14-2021	5-13-2021	0.5469	0.4914
11	5-14-2021	8-13-2021	0.6985	0.6276
12	8-14-2021	9-30-2021	0.3644	0.3275
		<b>Highest</b>	1.2602	0.9655

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7300e-003	5.7300e-003	2.0000e-005	0.0000	6.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.8000e-004</b>	<b>3.0000e-005</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7300e-003</b>	<b>5.7300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1100e-003</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2000e-004	2.0000e-005	1.7200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0900e-003	3.0900e-003	1.0000e-005	0.0000	3.2500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.2000e-004</b>	<b>2.0000e-005</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0900e-003</b>	<b>3.0900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.2500e-003</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.14	33.33	41.89	0.00	0.00	100.00	100.00	0.00	100.00	100.00	0.00	46.07	46.07	50.00	0.00	46.81

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	11/14/2018	8/20/2019	5	200	
2	Tunneling	Trenching	8/21/2019	5/26/2020	5	200	
3	Subaqueous Pipeline	Trenching	5/27/2020	3/2/2021	5	200	
4	Paving	Paving	3/3/2021	12/7/2021	5	200	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Tunneling	Bore/Drill Rigs	1	8.00	221	0.50
Tunneling	Cranes	1	8.00	231	0.29
Tunneling	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunneling	Generator Sets	1	8.00	84	0.74
Tunneling	Off-Highway Trucks	1	8.00	402	0.38
Tunneling	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Tunneling	Welders	2	8.00	46	0.45
Subaqueous Pipeline	Forklifts	1	8.00	89	0.20
Subaqueous Pipeline	Generator Sets	1	8.00	84	0.74
Subaqueous Pipeline	Other Construction Equipment	4	8.00	172	0.42
Subaqueous Pipeline	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	2,537.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunneling	9	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Subaqueous Pipeline	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4500e-003	0.0000	7.4500e-003	9.2000e-004	0.0000	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0646	0.5447	0.4546	7.9000e-004		0.0308	0.0308		0.0290	0.0290	0.0000	69.8588	69.8588	0.0189	0.0000	70.3299
<b>Total</b>	<b>0.0646</b>	<b>0.5447</b>	<b>0.4546</b>	<b>7.9000e-004</b>	<b>7.4500e-003</b>	<b>0.0308</b>	<b>0.0383</b>	<b>9.2000e-004</b>	<b>0.0290</b>	<b>0.0300</b>	<b>0.0000</b>	<b>69.8588</b>	<b>69.8588</b>	<b>0.0189</b>	<b>0.0000</b>	<b>70.3299</b>

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**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-003	0.0700	0.0146	1.7000e-004	0.0172	2.7000e-004	0.0175	4.3400e-003	2.6000e-004	4.6000e-003	0.0000	16.9935	16.9935	1.5300e-003	0.0000	17.0319
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	2.2200e-003	0.0208	6.0000e-005	5.5100e-003	4.0000e-005	5.5500e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	5.2529	5.2529	1.8000e-004	0.0000	5.2573
<b>Total</b>	<b>4.6500e-003</b>	<b>0.0722</b>	<b>0.0354</b>	<b>2.3000e-004</b>	<b>0.0227</b>	<b>3.1000e-004</b>	<b>0.0231</b>	<b>5.8000e-003</b>	<b>3.0000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>22.2465</b>	<b>22.2465</b>	<b>1.7100e-003</b>	<b>0.0000</b>	<b>22.2892</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3500e-003	0.0000	3.3500e-003	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0203	0.4048	0.5159	7.9000e-004		0.0226	0.0226		0.0226	0.0226	0.0000	69.8587	69.8587	0.0189	0.0000	70.3298
<b>Total</b>	<b>0.0203</b>	<b>0.4048</b>	<b>0.5159</b>	<b>7.9000e-004</b>	<b>3.3500e-003</b>	<b>0.0226</b>	<b>0.0259</b>	<b>4.1000e-004</b>	<b>0.0226</b>	<b>0.0230</b>	<b>0.0000</b>	<b>69.8587</b>	<b>69.8587</b>	<b>0.0189</b>	<b>0.0000</b>	<b>70.3298</b>

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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-003	0.0700	0.0146	1.7000e-004	0.0172	2.7000e-004	0.0175	4.3400e-003	2.6000e-004	4.6000e-003	0.0000	16.9935	16.9935	1.5300e-003	0.0000	17.0319
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	2.2200e-003	0.0208	6.0000e-005	5.5100e-003	4.0000e-005	5.5500e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	5.2529	5.2529	1.8000e-004	0.0000	5.2573
<b>Total</b>	<b>4.6500e-003</b>	<b>0.0722</b>	<b>0.0354</b>	<b>2.3000e-004</b>	<b>0.0227</b>	<b>3.1000e-004</b>	<b>0.0231</b>	<b>5.8000e-003</b>	<b>3.0000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>22.2465</b>	<b>22.2465</b>	<b>1.7100e-003</b>	<b>0.0000</b>	<b>22.2892</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4500e-003	0.0000	7.4500e-003	9.2000e-004	0.0000	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2807	2.3694	2.1796	3.8500e-003		0.1291	0.1291		0.1216	0.1216	0.0000	336.7294	336.7294	0.0909	0.0000	339.0018
<b>Total</b>	<b>0.2807</b>	<b>2.3694</b>	<b>2.1796</b>	<b>3.8500e-003</b>	<b>7.4500e-003</b>	<b>0.1291</b>	<b>0.1366</b>	<b>9.2000e-004</b>	<b>0.1216</b>	<b>0.1226</b>	<b>0.0000</b>	<b>336.7294</b>	<b>336.7294</b>	<b>0.0909</b>	<b>0.0000</b>	<b>339.0018</b>

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**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.2500e-003	0.3227	0.0704	8.3000e-004	0.0208	1.2100e-003	0.0220	5.6300e-003	1.1500e-003	6.7800e-003	0.0000	82.0800	82.0800	7.4300e-003	0.0000	82.2658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	9.6900e-003	0.0914	2.8000e-004	0.0269	1.9000e-004	0.0271	7.1500e-003	1.7000e-004	7.3200e-003	0.0000	24.8723	24.8723	7.7000e-004	0.0000	24.8917
<b>Total</b>	<b>0.0212</b>	<b>0.3323</b>	<b>0.1618</b>	<b>1.1100e-003</b>	<b>0.0477</b>	<b>1.4000e-003</b>	<b>0.0491</b>	<b>0.0128</b>	<b>1.3200e-003</b>	<b>0.0141</b>	<b>0.0000</b>	<b>106.9523</b>	<b>106.9523</b>	<b>8.2000e-003</b>	<b>0.0000</b>	<b>107.1574</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3500e-003	0.0000	3.3500e-003	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0992	1.9762	2.5186	3.8500e-003		0.1102	0.1102		0.1102	0.1102	0.0000	336.7290	336.7290	0.0909	0.0000	339.0014
<b>Total</b>	<b>0.0992</b>	<b>1.9762</b>	<b>2.5186</b>	<b>3.8500e-003</b>	<b>3.3500e-003</b>	<b>0.1102</b>	<b>0.1136</b>	<b>4.1000e-004</b>	<b>0.1102</b>	<b>0.1106</b>	<b>0.0000</b>	<b>336.7290</b>	<b>336.7290</b>	<b>0.0909</b>	<b>0.0000</b>	<b>339.0014</b>

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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.2500e-003	0.3227	0.0704	8.3000e-004	0.0208	1.2100e-003	0.0220	5.6300e-003	1.1500e-003	6.7800e-003	0.0000	82.0800	82.0800	7.4300e-003	0.0000	82.2658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	9.6900e-003	0.0914	2.8000e-004	0.0269	1.9000e-004	0.0271	7.1500e-003	1.7000e-004	7.3200e-003	0.0000	24.8723	24.8723	7.7000e-004	0.0000	24.8917
<b>Total</b>	<b>0.0212</b>	<b>0.3323</b>	<b>0.1618</b>	<b>1.1100e-003</b>	<b>0.0477</b>	<b>1.4000e-003</b>	<b>0.0491</b>	<b>0.0128</b>	<b>1.3200e-003</b>	<b>0.0141</b>	<b>0.0000</b>	<b>106.9523</b>	<b>106.9523</b>	<b>8.2000e-003</b>	<b>0.0000</b>	<b>107.1574</b>

**3.3 Tunneling - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1796	1.5549	1.1719	2.5300e-003		0.0779	0.0779		0.0744	0.0744	0.0000	220.7913	220.7913	0.0537	0.0000	222.1326
<b>Total</b>	<b>0.1796</b>	<b>1.5549</b>	<b>1.1719</b>	<b>2.5300e-003</b>		<b>0.0779</b>	<b>0.0779</b>		<b>0.0744</b>	<b>0.0744</b>	<b>0.0000</b>	<b>220.7913</b>	<b>220.7913</b>	<b>0.0537</b>	<b>0.0000</b>	<b>222.1326</b>

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**3.3 Tunneling - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3100e-003	5.1200e-003	0.0483	1.5000e-004	0.0142	1.0000e-004	0.0143	3.7800e-003	9.0000e-005	3.8700e-003	0.0000	13.1392	13.1392	4.1000e-004	0.0000	13.1494
<b>Total</b>	<b>6.3100e-003</b>	<b>5.1200e-003</b>	<b>0.0483</b>	<b>1.5000e-004</b>	<b>0.0142</b>	<b>1.0000e-004</b>	<b>0.0143</b>	<b>3.7800e-003</b>	<b>9.0000e-005</b>	<b>3.8700e-003</b>	<b>0.0000</b>	<b>13.1392</b>	<b>13.1392</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>13.1494</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0634	1.2621	1.4822	2.5300e-003		0.0663	0.0663		0.0663	0.0663	0.0000	220.7911	220.7911	0.0537	0.0000	222.1324
<b>Total</b>	<b>0.0634</b>	<b>1.2621</b>	<b>1.4822</b>	<b>2.5300e-003</b>		<b>0.0663</b>	<b>0.0663</b>		<b>0.0663</b>	<b>0.0663</b>	<b>0.0000</b>	<b>220.7911</b>	<b>220.7911</b>	<b>0.0537</b>	<b>0.0000</b>	<b>222.1324</b>

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**3.3 Tunneling - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3100e-003	5.1200e-003	0.0483	1.5000e-004	0.0142	1.0000e-004	0.0143	3.7800e-003	9.0000e-005	3.8700e-003	0.0000	13.1392	13.1392	4.1000e-004	0.0000	13.1494
<b>Total</b>	<b>6.3100e-003</b>	<b>5.1200e-003</b>	<b>0.0483</b>	<b>1.5000e-004</b>	<b>0.0142</b>	<b>1.0000e-004</b>	<b>0.0143</b>	<b>3.7800e-003</b>	<b>9.0000e-005</b>	<b>3.8700e-003</b>	<b>0.0000</b>	<b>13.1392</b>	<b>13.1392</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>13.1494</b>

**3.3 Tunneling - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1811	1.5680	1.2683	2.8000e-003		0.0751	0.0751		0.0717	0.0717	0.0000	240.5781	240.5781	0.0585	0.0000	242.0410
<b>Total</b>	<b>0.1811</b>	<b>1.5680</b>	<b>1.2683</b>	<b>2.8000e-003</b>		<b>0.0751</b>	<b>0.0751</b>		<b>0.0717</b>	<b>0.0717</b>	<b>0.0000</b>	<b>240.5781</b>	<b>240.5781</b>	<b>0.0585</b>	<b>0.0000</b>	<b>242.0410</b>



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**3.3 Tunneling - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	5.1100e-003	0.0489	1.6000e-004	0.0157	1.1000e-004	0.0158	4.1700e-003	1.0000e-004	4.2700e-003	0.0000	14.0635	14.0635	4.1000e-004	0.0000	14.0738
<b>Total</b>	<b>6.5300e-003</b>	<b>5.1100e-003</b>	<b>0.0489</b>	<b>1.6000e-004</b>	<b>0.0157</b>	<b>1.1000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.0000e-004</b>	<b>4.2700e-003</b>	<b>0.0000</b>	<b>14.0635</b>	<b>14.0635</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>14.0738</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0701	1.3950	1.6383	2.8000e-003		0.0732	0.0732		0.0732	0.0732	0.0000	240.5778	240.5778	0.0585	0.0000	242.0407
<b>Total</b>	<b>0.0701</b>	<b>1.3950</b>	<b>1.6383</b>	<b>2.8000e-003</b>		<b>0.0732</b>	<b>0.0732</b>		<b>0.0732</b>	<b>0.0732</b>	<b>0.0000</b>	<b>240.5778</b>	<b>240.5778</b>	<b>0.0585</b>	<b>0.0000</b>	<b>242.0407</b>

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**3.3 Tunneling - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	5.1100e-003	0.0489	1.6000e-004	0.0157	1.1000e-004	0.0158	4.1700e-003	1.0000e-004	4.2700e-003	0.0000	14.0635	14.0635	4.1000e-004	0.0000	14.0738
<b>Total</b>	<b>6.5300e-003</b>	<b>5.1100e-003</b>	<b>0.0489</b>	<b>1.6000e-004</b>	<b>0.0157</b>	<b>1.1000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.0000e-004</b>	<b>4.2700e-003</b>	<b>0.0000</b>	<b>14.0635</b>	<b>14.0635</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>14.0738</b>

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2142	2.1853	1.8568	2.8200e-003		0.1203	0.1203		0.1119	0.1119	0.0000	246.9025	246.9025	0.0680	0.0000	248.6026
<b>Total</b>	<b>0.2142</b>	<b>2.1853</b>	<b>1.8568</b>	<b>2.8200e-003</b>		<b>0.1203</b>	<b>0.1203</b>		<b>0.1119</b>	<b>0.1119</b>	<b>0.0000</b>	<b>246.9025</b>	<b>246.9025</b>	<b>0.0680</b>	<b>0.0000</b>	<b>248.6026</b>

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**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3200e-003	5.7300e-003	0.0548	1.7000e-004	0.0176	1.2000e-004	0.0177	4.6800e-003	1.1000e-004	4.7900e-003	0.0000	15.7713	15.7713	4.6000e-004	0.0000	15.7827
<b>Total</b>	<b>7.3200e-003</b>	<b>5.7300e-003</b>	<b>0.0548</b>	<b>1.7000e-004</b>	<b>0.0176</b>	<b>1.2000e-004</b>	<b>0.0177</b>	<b>4.6800e-003</b>	<b>1.1000e-004</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>15.7713</b>	<b>15.7713</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>15.7827</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0673	1.3676	2.0737	2.8200e-003		0.0756	0.0756		0.0756	0.0756	0.0000	246.9022	246.9022	0.0680	0.0000	248.6023
<b>Total</b>	<b>0.0673</b>	<b>1.3676</b>	<b>2.0737</b>	<b>2.8200e-003</b>		<b>0.0756</b>	<b>0.0756</b>		<b>0.0756</b>	<b>0.0756</b>	<b>0.0000</b>	<b>246.9022</b>	<b>246.9022</b>	<b>0.0680</b>	<b>0.0000</b>	<b>248.6023</b>

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**3.4 Subaqueous Pipeline - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3200e-003	5.7300e-003	0.0548	1.7000e-004	0.0176	1.2000e-004	0.0177	4.6800e-003	1.1000e-004	4.7900e-003	0.0000	15.7713	15.7713	4.6000e-004	0.0000	15.7827
<b>Total</b>	<b>7.3200e-003</b>	<b>5.7300e-003</b>	<b>0.0548</b>	<b>1.7000e-004</b>	<b>0.0176</b>	<b>1.2000e-004</b>	<b>0.0177</b>	<b>4.6800e-003</b>	<b>1.1000e-004</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>15.7713</b>	<b>15.7713</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>15.7827</b>

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.5109	0.5017	7.7000e-004		0.0275	0.0275		0.0256	0.0256	0.0000	67.6037	67.6037	0.0186	0.0000	68.0676
<b>Total</b>	<b>0.0506</b>	<b>0.5109</b>	<b>0.5017</b>	<b>7.7000e-004</b>		<b>0.0275</b>	<b>0.0275</b>		<b>0.0256</b>	<b>0.0256</b>	<b>0.0000</b>	<b>67.6037</b>	<b>67.6037</b>	<b>0.0186</b>	<b>0.0000</b>	<b>68.0676</b>

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**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.4300e-003	0.0140	5.0000e-005	4.8300e-003	3.0000e-005	4.8600e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1743	4.1743	1.2000e-004	0.0000	4.1772
<b>Total</b>	<b>1.8900e-003</b>	<b>1.4300e-003</b>	<b>0.0140</b>	<b>5.0000e-005</b>	<b>4.8300e-003</b>	<b>3.0000e-005</b>	<b>4.8600e-003</b>	<b>1.2800e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>4.1743</b>	<b>4.1743</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>4.1772</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.3746	0.5680	7.7000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	67.6037	67.6037	0.0186	0.0000	68.0675
<b>Total</b>	<b>0.0184</b>	<b>0.3746</b>	<b>0.5680</b>	<b>7.7000e-004</b>		<b>0.0207</b>	<b>0.0207</b>		<b>0.0207</b>	<b>0.0207</b>	<b>0.0000</b>	<b>67.6037</b>	<b>67.6037</b>	<b>0.0186</b>	<b>0.0000</b>	<b>68.0675</b>

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**3.4 Subaqueous Pipeline - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.4300e-003	0.0140	5.0000e-005	4.8300e-003	3.0000e-005	4.8600e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1743	4.1743	1.2000e-004	0.0000	4.1772
<b>Total</b>	<b>1.8900e-003</b>	<b>1.4300e-003</b>	<b>0.0140</b>	<b>5.0000e-005</b>	<b>4.8300e-003</b>	<b>3.0000e-005</b>	<b>4.8600e-003</b>	<b>1.2800e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>4.1743</b>	<b>4.1743</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>4.1772</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2118	1.8994	1.9130	3.6400e-003		0.0985	0.0985		0.0923	0.0923	0.0000	318.2487	318.2487	0.0876	0.0000	320.4379
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.2118</b>	<b>1.8994</b>	<b>1.9130</b>	<b>3.6400e-003</b>		<b>0.0985</b>	<b>0.0985</b>		<b>0.0923</b>	<b>0.0923</b>	<b>0.0000</b>	<b>318.2487</b>	<b>318.2487</b>	<b>0.0876</b>	<b>0.0000</b>	<b>320.4379</b>

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**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8100e-003	6.6400e-003	0.0653	2.1000e-004	0.0224	1.5000e-004	0.0226	5.9600e-003	1.4000e-004	6.1000e-003	0.0000	19.4153	19.4153	5.4000e-004	0.0000	19.4288
<b>Total</b>	<b>8.8100e-003</b>	<b>6.6400e-003</b>	<b>0.0653</b>	<b>2.1000e-004</b>	<b>0.0224</b>	<b>1.5000e-004</b>	<b>0.0226</b>	<b>5.9600e-003</b>	<b>1.4000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>19.4153</b>	<b>19.4153</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>19.4288</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0860	1.8096	2.3546	3.6400e-003		0.1018	0.1018		0.1018	0.1018	0.0000	318.2484	318.2484	0.0876	0.0000	320.4376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0860</b>	<b>1.8096</b>	<b>2.3546</b>	<b>3.6400e-003</b>		<b>0.1018</b>	<b>0.1018</b>		<b>0.1018</b>	<b>0.1018</b>	<b>0.0000</b>	<b>318.2484</b>	<b>318.2484</b>	<b>0.0876</b>	<b>0.0000</b>	<b>320.4376</b>

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**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8100e-003	6.6400e-003	0.0653	2.1000e-004	0.0224	1.5000e-004	0.0226	5.9600e-003	1.4000e-004	6.1000e-003	0.0000	19.4153	19.4153	5.4000e-004	0.0000	19.4288
<b>Total</b>	<b>8.8100e-003</b>	<b>6.6400e-003</b>	<b>0.0653</b>	<b>2.1000e-004</b>	<b>0.0224</b>	<b>1.5000e-004</b>	<b>0.0226</b>	<b>5.9600e-003</b>	<b>1.4000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>19.4153</b>	<b>19.4153</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>19.4288</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2000e-004	2.0000e-005	1.7200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0900e-003	3.0900e-003	1.0000e-005	0.0000	3.2500e-003
Unmitigated	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7300e-003	5.7300e-003	2.0000e-005	0.0000	6.1100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7300e-003	5.7300e-003	2.0000e-005	0.0000	6.1100e-003
<b>Total</b>	<b>2.8000e-004</b>	<b>3.0000e-005</b>	<b>2.9600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7300e-003</b>	<b>5.7300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1100e-003</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	2.0000e-005	1.7200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0900e-003	3.0900e-003	1.0000e-005	0.0000	3.2500e-003
<b>Total</b>	<b>1.2000e-004</b>	<b>2.0000e-005</b>	<b>1.7200e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0900e-003</b>	<b>3.0900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.2500e-003</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**NCPWF Pipeline-Open Trench**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	320.54	1000sqft	7.36	320,535.24	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.





NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Tunneling
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	397.47	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,537.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	74,124,875.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.0717	36.1949	28.8800	0.0602	1.4470	1.8322	3.2792	0.3590	1.7257	2.0847	0.0000	5,998.7476	5,998.7476	1.3317	0.0000	6,032.0413
2019	3.9106	32.8313	28.2650	0.0599	0.6626	1.6420	2.2348	0.1665	1.5672	1.6485	0.0000	5,918.4229	5,918.4229	1.3152	0.0000	5,951.3025
2020	3.5714	29.9554	25.1583	0.0564	0.3066	1.5333	1.7633	0.0813	1.4264	1.4874	0.0000	5,362.8238	5,362.8238	1.2376	0.0000	5,393.7649
2021	2.4399	23.8250	24.0367	0.0387	0.2299	1.2811	1.5110	0.0610	1.1921	1.2530	0.0000	3,733.8994	3,733.8994	0.9716	0.0000	3,758.1882
<b>Maximum</b>	<b>4.0717</b>	<b>36.1949</b>	<b>28.8800</b>	<b>0.0602</b>	<b>1.4470</b>	<b>1.8322</b>	<b>3.2792</b>	<b>0.3590</b>	<b>1.7257</b>	<b>2.0847</b>	<b>0.0000</b>	<b>5,998.7476</b>	<b>5,998.7476</b>	<b>1.3317</b>	<b>0.0000</b>	<b>6,032.0413</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0749</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.0398</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.74	43.33	42.08	0.00	0.00	58.33	58.33	0.00	58.33	58.33	0.00	46.10	46.10	57.89	0.00	46.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	11/14/2018	8/20/2019	5	200	
2	Tunneling	Trenching	8/21/2019	5/26/2020	5	200	
3	Subaqueous Pipeline	Trenching	5/27/2020	3/2/2021	5	200	
4	Paving	Paving	3/3/2021	12/7/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Tunneling	Bore/Drill Rigs	1	8.00	221	0.50
Tunneling	Cranes	1	8.00	231	0.29
Tunneling	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunneling	Generator Sets	1	8.00	84	0.74
Tunneling	Off-Highway Trucks	1	8.00	402	0.38
Tunneling	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Tunneling	Welders	2	8.00	46	0.45
Subaqueous Pipeline	Forklifts	1	8.00	89	0.20
Subaqueous Pipeline	Generator Sets	1	8.00	84	0.74
Subaqueous Pipeline	Other Construction Equipment	4	8.00	172	0.42
Subaqueous Pipeline	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	2,537.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunneling	9	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Subaqueous Pipeline	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.8025	32.0419	26.7394	0.0464		1.8140	1.8140		1.7084	1.7084		4,529.7709	4,529.7709	1.2220		4,560.3202
<b>Total</b>	<b>3.8025</b>	<b>32.0419</b>	<b>26.7394</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.8140</b>	<b>1.8885</b>	<b>9.2000e-003</b>	<b>1.7084</b>	<b>1.7176</b>		<b>4,529.7709</b>	<b>4,529.7709</b>	<b>1.2220</b>		<b>4,560.3202</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1161	4.0348	0.8321	0.0102	1.0405	0.0159	1.0564	0.2617	0.0152	0.2769		1,109.626 1	1,109.626 1	0.0978		1,112.0715
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.2692</b>	<b>4.1530</b>	<b>2.1406</b>	<b>0.0138</b>	<b>1.3726</b>	<b>0.0182</b>	<b>1.3908</b>	<b>0.3498</b>	<b>0.0173</b>	<b>0.3671</b>		<b>1,468.976 7</b>	<b>1,468.976 7</b>	<b>0.1098</b>		<b>1,471.721 1</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,529.770 9	4,529.770 9	1.2220		4,560.320 2
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,529.770 9</b>	<b>4,529.770 9</b>	<b>1.2220</b>		<b>4,560.320 2</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1161	4.0348	0.8321	0.0102	1.0405	0.0159	1.0564	0.2617	0.0152	0.2769		1,109.626 1	1,109.626 1	0.0978		1,112.0715
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.2692</b>	<b>4.1530</b>	<b>2.1406</b>	<b>0.0138</b>	<b>1.3726</b>	<b>0.0182</b>	<b>1.3908</b>	<b>0.3498</b>	<b>0.0173</b>	<b>0.3671</b>		<b>1,468.976 7</b>	<b>1,468.976 7</b>	<b>0.1098</b>		<b>1,471.721 1</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.055 1	4,472.055 1	1.2072		4,502.234 8
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.5556</b>	<b>1.6301</b>	<b>9.2000e-003</b>	<b>1.4655</b>	<b>1.4747</b>		<b>4,472.055 1</b>	<b>4,472.055 1</b>	<b>1.2072</b>		<b>4,502.234 8</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1101	3.8102	0.8225	0.0101	0.2560	0.0144	0.2704	0.0692	0.0138	0.0829		1,097.8521	1,097.8521	0.0972		1,100.2810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.2514</b>	<b>3.9160</b>	<b>2.0053</b>	<b>0.0136</b>	<b>0.5881</b>	<b>0.0167</b>	<b>0.6048</b>	<b>0.1573</b>	<b>0.0159</b>	<b>0.1731</b>		<b>1,446.3679</b>	<b>1,446.3679</b>	<b>0.1080</b>		<b>1,449.0677</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1101	3.8102	0.8225	0.0101	0.2560	0.0144	0.2704	0.0692	0.0138	0.0829		1,097.8521	1,097.8521	0.0972		1,100.2810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.2514</b>	<b>3.9160</b>	<b>2.0053</b>	<b>0.0136</b>	<b>0.5881</b>	<b>0.0167</b>	<b>0.6048</b>	<b>0.1573</b>	<b>0.0159</b>	<b>0.1731</b>		<b>1,446.3679</b>	<b>1,446.3679</b>	<b>0.1080</b>		<b>1,449.0677</b>

**3.3 Tunneling - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7802	32.7336	24.6717	0.0533		1.6399	1.6399		1.5652	1.5652		5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>3.7802</b>	<b>32.7336</b>	<b>24.6717</b>	<b>0.0533</b>		<b>1.6399</b>	<b>1.6399</b>		<b>1.5652</b>	<b>1.5652</b>		<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1305	0.0976	1.0918	3.2300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		321.7068	321.7068	0.0100		321.9569
<b>Total</b>	<b>0.1305</b>	<b>0.0976</b>	<b>1.0918</b>	<b>3.2300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>321.7068</b>	<b>321.7068</b>	<b>0.0100</b>		<b>321.9569</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1305	0.0976	1.0918	3.2300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		321.7068	321.7068	0.0100		321.9569
<b>Total</b>	<b>0.1305</b>	<b>0.0976</b>	<b>1.0918</b>	<b>3.2300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>321.7068</b>	<b>321.7068</b>	<b>0.0100</b>		<b>321.9569</b>

**3.3 Tunneling - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4493	29.8672	24.1574	0.0533		1.4313	1.4313		1.3656	1.3656		5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>3.4493</b>	<b>29.8672</b>	<b>24.1574</b>	<b>0.0533</b>		<b>1.4313</b>	<b>1.4313</b>		<b>1.3656</b>	<b>1.3656</b>		<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1221	0.0882	1.0009	3.1300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		311.5481	311.5481	9.0600e-003		311.7747
<b>Total</b>	<b>0.1221</b>	<b>0.0882</b>	<b>1.0009</b>	<b>3.1300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>311.5481</b>	<b>311.5481</b>	<b>9.0600e-003</b>		<b>311.7747</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1221	0.0882	1.0009	3.1300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		311.5481	311.5481	9.0600e-003		311.7747
<b>Total</b>	<b>0.1221</b>	<b>0.0882</b>	<b>1.0009</b>	<b>3.1300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>311.5481</b>	<b>311.5481</b>	<b>9.0600e-003</b>		<b>311.7747</b>

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7286	27.8377	23.6538	0.0359		1.5318	1.5318		1.4250	1.4250		3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>2.7286</b>	<b>27.8377</b>	<b>23.6538</b>	<b>0.0359</b>		<b>1.5318</b>	<b>1.5318</b>		<b>1.4250</b>	<b>1.4250</b>		<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3535	23.7648	23.3333	0.0359		1.2796	1.2796		1.1906	1.1906		3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>2.3535</b>	<b>23.7648</b>	<b>23.3333</b>	<b>0.0359</b>		<b>1.2796</b>	<b>1.2796</b>		<b>1.1906</b>	<b>1.1906</b>		<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1179	18.9936	19.1299	0.0364		0.9854	0.9854		0.9233	0.9233		3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1179</b>	<b>18.9936</b>	<b>19.1299</b>	<b>0.0364</b>		<b>0.9854</b>	<b>0.9854</b>		<b>0.9233</b>	<b>0.9233</b>		<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Unmitigated	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>		<b>0.0749</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>		<b>0.0398</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**NCPWF Pipeline-Open Trench**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	320.54	1000sqft	7.36	320,535.24	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.





NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Tunneling
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	397.47	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,537.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	74,124,875.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.0988	36.2526	28.8501	0.0598	1.4470	1.8325	3.2796	0.3590	1.7261	2.0851	0.0000	5,958.204 2	5,958.204 2	1.3347	0.0000	5,991.572 0
2019	3.9312	32.8432	28.2358	0.0595	0.6626	1.6420	2.2352	0.1665	1.5672	1.6485	0.0000	5,878.468 1	5,878.468 1	1.3180	0.0000	5,911.4192
2020	3.5909	29.9662	25.0817	0.0562	0.3066	1.5333	1.7633	0.0813	1.4264	1.4874	0.0000	5,343.617 3	5,343.617 3	1.2371	0.0000	5,374.544 3
2021	2.4539	23.8323	23.9812	0.0385	0.2299	1.2811	1.5110	0.0610	1.1921	1.2530	0.0000	3,719.975 1	3,719.975 1	0.9712	0.0000	3,744.253 9
<b>Maximum</b>	<b>4.0988</b>	<b>36.2526</b>	<b>28.8501</b>	<b>0.0598</b>	<b>1.4470</b>	<b>1.8325</b>	<b>3.2796</b>	<b>0.3590</b>	<b>1.7261</b>	<b>2.0851</b>	<b>0.0000</b>	<b>5,958.204 2</b>	<b>5,958.204 2</b>	<b>1.3347</b>	<b>0.0000</b>	<b>5,991.572 0</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0749</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.0398</b>

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.74	43.33	42.08	0.00	0.00	58.33	58.33	0.00	58.33	58.33	0.00	46.10	46.10	57.89	0.00	46.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	11/14/2018	8/20/2019	5	200	
2	Tunneling	Trenching	8/21/2019	5/26/2020	5	200	
3	Subaqueous Pipeline	Trenching	5/27/2020	3/2/2021	5	200	
4	Paving	Paving	3/3/2021	12/7/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Tunneling	Bore/Drill Rigs	1	8.00	221	0.50
Tunneling	Cranes	1	8.00	231	0.29
Tunneling	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunneling	Generator Sets	1	8.00	84	0.74
Tunneling	Off-Highway Trucks	1	8.00	402	0.38
Tunneling	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Tunneling	Welders	2	8.00	46	0.45
Subaqueous Pipeline	Forklifts	1	8.00	89	0.20
Subaqueous Pipeline	Generator Sets	1	8.00	84	0.74
Subaqueous Pipeline	Other Construction Equipment	4	8.00	172	0.42
Subaqueous Pipeline	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	2,537.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunneling	9	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Subaqueous Pipeline	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.8025	32.0419	26.7394	0.0464		1.8140	1.8140		1.7084	1.7084		4,529.7709	4,529.7709	1.2220		4,560.3202
<b>Total</b>	<b>3.8025</b>	<b>32.0419</b>	<b>26.7394</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.8140</b>	<b>1.8885</b>	<b>9.2000e-003</b>	<b>1.7084</b>	<b>1.7176</b>		<b>4,529.7709</b>	<b>4,529.7709</b>	<b>1.2220</b>		<b>4,560.3202</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1194	4.0779	0.8947	0.0100	1.0405	0.0163	1.0567	0.2617	0.0155	0.2773		1,091.2129	1,091.2129	0.1015		1,093.7498
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.2963</b>	<b>4.2106</b>	<b>2.1107</b>	<b>0.0134</b>	<b>1.3726</b>	<b>0.0186</b>	<b>1.3911</b>	<b>0.3498</b>	<b>0.0177</b>	<b>0.3675</b>		<b>1,428.4332</b>	<b>1,428.4332</b>	<b>0.1128</b>		<b>1,431.2519</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,529.7709	4,529.7709	1.2220		4,560.3202
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,529.7709</b>	<b>4,529.7709</b>	<b>1.2220</b>		<b>4,560.3202</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1194	4.0779	0.8947	0.0100	1.0405	0.0163	1.0567	0.2617	0.0155	0.2773		1,091.2129	1,091.2129	0.1015		1,093.7498
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.2963</b>	<b>4.2106</b>	<b>2.1107</b>	<b>0.0134</b>	<b>1.3726</b>	<b>0.0186</b>	<b>1.3911</b>	<b>0.3498</b>	<b>0.0177</b>	<b>0.3675</b>		<b>1,428.4332</b>	<b>1,428.4332</b>	<b>0.1128</b>		<b>1,431.2519</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.5556</b>	<b>1.6301</b>	<b>9.2000e-003</b>	<b>1.4655</b>	<b>1.4747</b>		<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1132	3.8493	0.8814	9.9000e-003	0.2560	0.0147	0.2707	0.0692	0.0141	0.0833		1,079.3779	1,079.3779	0.1007		1,081.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.2768</b>	<b>3.9680</b>	<b>1.9762</b>	<b>0.0132</b>	<b>0.5881</b>	<b>0.0170</b>	<b>0.6051</b>	<b>0.1573</b>	<b>0.0162</b>	<b>0.1734</b>		<b>1,406.4130</b>	<b>1,406.4130</b>	<b>0.1109</b>		<b>1,409.1844</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1132	3.8493	0.8814	9.9000e-003	0.2560	0.0147	0.2707	0.0692	0.0141	0.0833		1,079.3779	1,079.3779	0.1007		1,081.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.2768</b>	<b>3.9680</b>	<b>1.9762</b>	<b>0.0132</b>	<b>0.5881</b>	<b>0.0170</b>	<b>0.6051</b>	<b>0.1573</b>	<b>0.0162</b>	<b>0.1734</b>		<b>1,406.4130</b>	<b>1,406.4130</b>	<b>0.1109</b>		<b>1,409.1844</b>

**3.3 Tunneling - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7802	32.7336	24.6717	0.0533		1.6399	1.6399		1.5652	1.5652		5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>3.7802</b>	<b>32.7336</b>	<b>24.6717</b>	<b>0.0533</b>		<b>1.6399</b>	<b>1.6399</b>		<b>1.5652</b>	<b>1.5652</b>		<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1510	0.1096	1.0105	3.0300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		301.8786	301.8786	9.4000e-003		302.1136
<b>Total</b>	<b>0.1510</b>	<b>0.1096</b>	<b>1.0105</b>	<b>3.0300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>301.8786</b>	<b>301.8786</b>	<b>9.4000e-003</b>		<b>302.1136</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1510	0.1096	1.0105	3.0300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		301.8786	301.8786	9.4000e-003		302.1136
<b>Total</b>	<b>0.1510</b>	<b>0.1096</b>	<b>1.0105</b>	<b>3.0300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>301.8786</b>	<b>301.8786</b>	<b>9.4000e-003</b>		<b>302.1136</b>

**3.3 Tunneling - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4493	29.8672	24.1574	0.0533		1.4313	1.4313		1.3656	1.3656		5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>3.4493</b>	<b>29.8672</b>	<b>24.1574</b>	<b>0.0533</b>		<b>1.4313</b>	<b>1.4313</b>		<b>1.3656</b>	<b>1.3656</b>		<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1416	0.0990	0.9243	2.9300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		292.3416	292.3416	8.5000e-003		292.5540
<b>Total</b>	<b>0.1416</b>	<b>0.0990</b>	<b>0.9243</b>	<b>2.9300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>292.3416</b>	<b>292.3416</b>	<b>8.5000e-003</b>		<b>292.5540</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1416	0.0990	0.9243	2.9300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		292.3416	292.3416	8.5000e-003		292.5540
<b>Total</b>	<b>0.1416</b>	<b>0.0990</b>	<b>0.9243</b>	<b>2.9300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>292.3416</b>	<b>292.3416</b>	<b>8.5000e-003</b>		<b>292.5540</b>

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7286	27.8377	23.6538	0.0359		1.5318	1.5318		1.4250	1.4250		3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>2.7286</b>	<b>27.8377</b>	<b>23.6538</b>	<b>0.0359</b>		<b>1.5318</b>	<b>1.5318</b>		<b>1.4250</b>	<b>1.4250</b>		<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3535	23.7648	23.3333	0.0359		1.2796	1.2796		1.1906	1.1906		3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>2.3535</b>	<b>23.7648</b>	<b>23.3333</b>	<b>0.0359</b>		<b>1.2796</b>	<b>1.2796</b>		<b>1.1906</b>	<b>1.1906</b>		<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1179	18.9936	19.1299	0.0364		0.9854	0.9854		0.9233	0.9233		3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1179</b>	<b>18.9936</b>	<b>19.1299</b>	<b>0.0364</b>		<b>0.9854</b>	<b>0.9854</b>		<b>0.9233</b>	<b>0.9233</b>		<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Unmitigated	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>		<b>0.0749</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>		<b>0.0398</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Annual

**NCPWF Pipeline-Trenchless**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.06	1000sqft	0.05	2,057.63	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

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On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	2,060.00	2,057.63
tblLandUse	LandUseSquareFeet	2,060.00	2,057.63
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Connections
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation
tblOffRoadEquipment	UsageHours	4.00	8.00

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tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	2.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	476,375.00	0.00

## 2.0 Emissions Summary

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0337	0.4078	0.2280	4.4000e-004	1.7000e-003	0.0166	0.0183	4.5000e-004	0.0153	0.0158	0.0000	40.2875	40.2875	0.0121	0.0000	40.5898
2019	0.2098	2.0944	1.4040	2.4800e-003	0.0144	0.1089	0.1233	3.8200e-003	0.1014	0.1052	0.0000	221.1154	221.1154	0.0591	0.0000	222.5921
2020	0.0811	0.6561	0.5127	8.9000e-004	3.2200e-003	0.0347	0.0379	8.7000e-004	0.0326	0.0335	0.0000	74.5230	74.5230	0.0195	0.0000	75.0108
<b>Maximum</b>	<b>0.2098</b>	<b>2.0944</b>	<b>1.4040</b>	<b>2.4800e-003</b>	<b>0.0144</b>	<b>0.1089</b>	<b>0.1233</b>	<b>3.8200e-003</b>	<b>0.1014</b>	<b>0.1052</b>	<b>0.0000</b>	<b>221.1154</b>	<b>221.1154</b>	<b>0.0591</b>	<b>0.0000</b>	<b>222.5921</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0112	0.2060	0.2433	4.4000e-004	1.7000e-003	8.7500e-003	0.0104	4.5000e-004	8.7500e-003	9.2000e-003	0.0000	40.2874	40.2874	0.0121	0.0000	40.5897
2019	0.0619	1.1523	1.5031	2.4800e-003	0.0144	0.0603	0.0747	3.8200e-003	0.0603	0.0642	0.0000	221.1152	221.1152	0.0591	0.0000	222.5919
2020	0.0263	0.4812	0.5349	8.9000e-004	3.2200e-003	0.0269	0.0302	8.7000e-004	0.0269	0.0278	0.0000	74.5230	74.5230	0.0195	0.0000	75.0108
<b>Maximum</b>	<b>0.0619</b>	<b>1.1523</b>	<b>1.5031</b>	<b>2.4800e-003</b>	<b>0.0144</b>	<b>0.0603</b>	<b>0.0747</b>	<b>3.8200e-003</b>	<b>0.0603</b>	<b>0.0642</b>	<b>0.0000</b>	<b>221.1152</b>	<b>221.1152</b>	<b>0.0591</b>	<b>0.0000</b>	<b>222.5919</b>



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.38	41.76	-6.37	0.00	0.00	40.07	35.77	0.00	35.67	34.48	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-14-2018	2-13-2019	0.8178	0.4200
2	2-14-2019	5-13-2019	0.4063	0.2190
		Highest	0.8178	0.4200

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	50.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	11/14/2018	4/2/2019	5	100	
2	Portal Excavation	Site Preparation	4/3/2019	8/20/2019	5	100	
3	Site Restoration	Site Preparation	8/21/2019	1/7/2020	5	100	
4	Pipe Installation	Building Construction	1/8/2020	5/26/2020	5	100	
5	Pipe Connections	Building Construction	5/27/2020	10/13/2020	5	100	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Cranes	1	8.00	231	0.29
Pipe Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Welders	2	8.00	46	0.45
Pipe Connections	Other General Industrial Equipment	1	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation	4	2.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Connections	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0329	0.4071	0.2217	4.2000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	38.6712	38.6712	0.0120	0.0000	38.9722
<b>Total</b>	<b>0.0329</b>	<b>0.4071</b>	<b>0.2217</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0166</b>	<b>0.0166</b>	<b>0.0000</b>	<b>0.0153</b>	<b>0.0153</b>	<b>0.0000</b>	<b>38.6712</b>	<b>38.6712</b>	<b>0.0120</b>	<b>0.0000</b>	<b>38.9722</b>

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**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.8000e-004	6.3900e-003	2.0000e-005	1.7000e-003	1.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.6163	1.6163	5.0000e-005	0.0000	1.6176
<b>Total</b>	<b>8.2000e-004</b>	<b>6.8000e-004</b>	<b>6.3900e-003</b>	<b>2.0000e-005</b>	<b>1.7000e-003</b>	<b>1.0000e-005</b>	<b>1.7100e-003</b>	<b>4.5000e-004</b>	<b>1.0000e-005</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>1.6163</b>	<b>1.6163</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6176</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.2054	0.2369	4.2000e-004		8.7400e-003	8.7400e-003		8.7400e-003	8.7400e-003	0.0000	38.6711	38.6711	0.0120	0.0000	38.9721
<b>Total</b>	<b>0.0104</b>	<b>0.2054</b>	<b>0.2369</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>8.7400e-003</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>8.7400e-003</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>38.6711</b>	<b>38.6711</b>	<b>0.0120</b>	<b>0.0000</b>	<b>38.9721</b>

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**3.2 Site Preparation at Portal Sites - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.8000e-004	6.3900e-003	2.0000e-005	1.7000e-003	1.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.6163	1.6163	5.0000e-005	0.0000	1.6176
<b>Total</b>	<b>8.2000e-004</b>	<b>6.8000e-004</b>	<b>6.3900e-003</b>	<b>2.0000e-005</b>	<b>1.7000e-003</b>	<b>1.0000e-005</b>	<b>1.7100e-003</b>	<b>4.5000e-004</b>	<b>1.0000e-005</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>1.6163</b>	<b>1.6163</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6176</b>

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0589	0.7204	0.4027	8.2000e-004		0.0288	0.0288		0.0265	0.0265	0.0000	73.7945	73.7945	0.0234	0.0000	74.3781
<b>Total</b>	<b>0.0589</b>	<b>0.7204</b>	<b>0.4027</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0000</b>	<b>0.0265</b>	<b>0.0265</b>	<b>0.0000</b>	<b>73.7945</b>	<b>73.7945</b>	<b>0.0234</b>	<b>0.0000</b>	<b>74.3781</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	1.1900e-003	0.0112	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.0428	3.0428	9.0000e-005	0.0000	3.0451
<b>Total</b>	<b>1.4600e-003</b>	<b>1.1900e-003</b>	<b>0.0112</b>	<b>3.0000e-005</b>	<b>3.2900e-003</b>	<b>2.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>3.0428</b>	<b>3.0428</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>3.0451</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.3986	0.4599	8.2000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	73.7944	73.7944	0.0234	0.0000	74.3781
<b>Total</b>	<b>0.0202</b>	<b>0.3986</b>	<b>0.4599</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>0.0170</b>	<b>0.0170</b>	<b>0.0000</b>	<b>0.0170</b>	<b>0.0170</b>	<b>0.0000</b>	<b>73.7944</b>	<b>73.7944</b>	<b>0.0234</b>	<b>0.0000</b>	<b>74.3781</b>



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**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	1.1900e-003	0.0112	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.0428	3.0428	9.0000e-005	0.0000	3.0451
<b>Total</b>	<b>1.4600e-003</b>	<b>1.1900e-003</b>	<b>0.0112</b>	<b>3.0000e-005</b>	<b>3.2900e-003</b>	<b>2.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>3.0428</b>	<b>3.0428</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>3.0451</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1335	1.2578	0.8431	1.3600e-003		0.0726	0.0726		0.0679	0.0679	0.0000	120.7680	120.7680	0.0311	0.0000	121.5459
<b>Total</b>	<b>0.1335</b>	<b>1.2578</b>	<b>0.8431</b>	<b>1.3600e-003</b>	<b>0.0000</b>	<b>0.0726</b>	<b>0.0726</b>	<b>0.0000</b>	<b>0.0679</b>	<b>0.0679</b>	<b>0.0000</b>	<b>120.7680</b>	<b>120.7680</b>	<b>0.0311</b>	<b>0.0000</b>	<b>121.5459</b>

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**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	3.1400e-003	0.0297	9.0000e-005	8.7300e-003	6.0000e-005	8.7900e-003	2.3200e-003	6.0000e-005	2.3800e-003	0.0000	8.0679	8.0679	2.5000e-004	0.0000	8.0742
<b>Total</b>	<b>3.8700e-003</b>	<b>3.1400e-003</b>	<b>0.0297</b>	<b>9.0000e-005</b>	<b>8.7300e-003</b>	<b>6.0000e-005</b>	<b>8.7900e-003</b>	<b>2.3200e-003</b>	<b>6.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>8.0679</b>	<b>8.0679</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>8.0742</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0318	0.6661	0.8831	1.3600e-003		0.0375	0.0375		0.0375	0.0375	0.0000	120.7679	120.7679	0.0311	0.0000	121.5457
<b>Total</b>	<b>0.0318</b>	<b>0.6661</b>	<b>0.8831</b>	<b>1.3600e-003</b>	<b>0.0000</b>	<b>0.0375</b>	<b>0.0375</b>	<b>0.0000</b>	<b>0.0375</b>	<b>0.0375</b>	<b>0.0000</b>	<b>120.7679</b>	<b>120.7679</b>	<b>0.0311</b>	<b>0.0000</b>	<b>121.5457</b>

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**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	3.1400e-003	0.0297	9.0000e-005	8.7300e-003	6.0000e-005	8.7900e-003	2.3200e-003	6.0000e-005	2.3800e-003	0.0000	8.0679	8.0679	2.5000e-004	0.0000	8.0742
<b>Total</b>	<b>3.8700e-003</b>	<b>3.1400e-003</b>	<b>0.0297</b>	<b>9.0000e-005</b>	<b>8.7300e-003</b>	<b>6.0000e-005</b>	<b>8.7900e-003</b>	<b>2.3200e-003</b>	<b>6.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>8.0679</b>	<b>8.0679</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>8.0742</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1110	0.1094	1.5000e-004		7.4100e-003	7.4100e-003		6.8200e-003	6.8200e-003	0.0000	13.2524	13.2524	4.1900e-003	0.0000	13.3572
<b>Total</b>	<b>0.0111</b>	<b>0.1110</b>	<b>0.1094</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>7.4100e-003</b>	<b>7.4100e-003</b>	<b>0.0000</b>	<b>6.8200e-003</b>	<b>6.8200e-003</b>	<b>0.0000</b>	<b>13.2524</b>	<b>13.2524</b>	<b>4.1900e-003</b>	<b>0.0000</b>	<b>13.3572</b>

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**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	8.5000e-004	8.0500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.1899	2.1899	7.0000e-005	0.0000	2.1916
<b>Total</b>	<b>1.0500e-003</b>	<b>8.5000e-004</b>	<b>8.0500e-003</b>	<b>2.0000e-005</b>	<b>2.3700e-003</b>	<b>2.0000e-005</b>	<b>2.3900e-003</b>	<b>6.3000e-004</b>	<b>2.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.1899</b>	<b>2.1899</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.1916</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6100e-003	0.0824	0.1113	1.5000e-004		5.7700e-003	5.7700e-003		5.7700e-003	5.7700e-003	0.0000	13.2524	13.2524	4.1900e-003	0.0000	13.3572
<b>Total</b>	<b>3.6100e-003</b>	<b>0.0824</b>	<b>0.1113</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>5.7700e-003</b>	<b>5.7700e-003</b>	<b>0.0000</b>	<b>5.7700e-003</b>	<b>5.7700e-003</b>	<b>0.0000</b>	<b>13.2524</b>	<b>13.2524</b>	<b>4.1900e-003</b>	<b>0.0000</b>	<b>13.3572</b>

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**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	8.5000e-004	8.0500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.1899	2.1899	7.0000e-005	0.0000	2.1916
<b>Total</b>	<b>1.0500e-003</b>	<b>8.5000e-004</b>	<b>8.0500e-003</b>	<b>2.0000e-005</b>	<b>2.3700e-003</b>	<b>2.0000e-005</b>	<b>2.3900e-003</b>	<b>6.3000e-004</b>	<b>2.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.1899</b>	<b>2.1899</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.1916</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	5.2600e-003	5.7000e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.1000e-004	3.1000e-004	0.0000	0.6821	0.6821	2.2000e-004	0.0000	0.6877
<b>Total</b>	<b>5.2000e-004</b>	<b>5.2600e-003</b>	<b>5.7000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.6821</b>	<b>0.6821</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6877</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	1.2000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1116	0.1116	0.0000	0.0000	0.1117
<b>Total</b>	<b>5.0000e-005</b>	<b>4.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.1116</b>	<b>0.1116</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1117</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-004	4.3400e-003	5.8600e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.6821	0.6821	2.2000e-004	0.0000	0.6877
<b>Total</b>	<b>1.9000e-004</b>	<b>4.3400e-003</b>	<b>5.8600e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.6821</b>	<b>0.6821</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6877</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	1.2000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1116	0.1116	0.0000	0.0000	0.1117
<b>Total</b>	<b>5.0000e-005</b>	<b>4.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.1116</b>	<b>0.1116</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1117</b>

**3.5 Pipe Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0674	0.5320	0.3965	7.0000e-004		0.0265	0.0265		0.0250	0.0250	0.0000	57.8110	57.8110	0.0154	0.0000	58.1958
<b>Total</b>	<b>0.0674</b>	<b>0.5320</b>	<b>0.3965</b>	<b>7.0000e-004</b>		<b>0.0265</b>	<b>0.0265</b>		<b>0.0250</b>	<b>0.0250</b>	<b>0.0000</b>	<b>57.8110</b>	<b>57.8110</b>	<b>0.0154</b>	<b>0.0000</b>	<b>58.1958</b>

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**3.5 Pipe Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	0.0109	2.8900e-003	3.0000e-005	6.0000e-004	5.0000e-005	6.5000e-004	1.7000e-004	5.0000e-005	2.2000e-004	0.0000	2.4361	2.4361	1.9000e-004	0.0000	2.4409
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>8.8000e-004</b>	<b>0.0113</b>	<b>6.7700e-003</b>	<b>4.0000e-005</b>	<b>1.8500e-003</b>	<b>6.0000e-005</b>	<b>1.9100e-003</b>	<b>5.0000e-004</b>	<b>6.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>3.5523</b>	<b>3.5523</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>3.5579</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.3928	0.4204	7.0000e-004		0.0215	0.0215		0.0215	0.0215	0.0000	57.8109	57.8109	0.0154	0.0000	58.1957
<b>Total</b>	<b>0.0215</b>	<b>0.3928</b>	<b>0.4204</b>	<b>7.0000e-004</b>		<b>0.0215</b>	<b>0.0215</b>		<b>0.0215</b>	<b>0.0215</b>	<b>0.0000</b>	<b>57.8109</b>	<b>57.8109</b>	<b>0.0154</b>	<b>0.0000</b>	<b>58.1957</b>



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**3.5 Pipe Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	0.0109	2.8900e-003	3.0000e-005	6.0000e-004	5.0000e-005	6.5000e-004	1.7000e-004	5.0000e-005	2.2000e-004	0.0000	2.4361	2.4361	1.9000e-004	0.0000	2.4409
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>8.8000e-004</b>	<b>0.0113</b>	<b>6.7700e-003</b>	<b>4.0000e-005</b>	<b>1.8500e-003</b>	<b>6.0000e-005</b>	<b>1.9100e-003</b>	<b>5.0000e-004</b>	<b>6.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>3.5523</b>	<b>3.5523</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>3.5579</b>

**3.6 Pipe Connections - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0118	0.1071	0.0995	1.3000e-004		7.8100e-003	7.8100e-003		7.1800e-003	7.1800e-003	0.0000	11.2499	11.2499	3.6400e-003	0.0000	11.3409
<b>Total</b>	<b>0.0118</b>	<b>0.1071</b>	<b>0.0995</b>	<b>1.3000e-004</b>		<b>7.8100e-003</b>	<b>7.8100e-003</b>		<b>7.1800e-003</b>	<b>7.1800e-003</b>	<b>0.0000</b>	<b>11.2499</b>	<b>11.2499</b>	<b>3.6400e-003</b>	<b>0.0000</b>	<b>11.3409</b>

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**3.6 Pipe Connections - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>5.2000e-004</b>	<b>4.1000e-004</b>	<b>3.8800e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>1.0000e-005</b>	<b>1.2600e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1162</b>	<b>1.1162</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.1170</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1700e-003	0.0723	0.0976	1.3000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003	0.0000	11.2499	11.2499	3.6400e-003	0.0000	11.3409
<b>Total</b>	<b>3.1700e-003</b>	<b>0.0723</b>	<b>0.0976</b>	<b>1.3000e-004</b>		<b>5.0700e-003</b>	<b>5.0700e-003</b>		<b>5.0700e-003</b>	<b>5.0700e-003</b>	<b>0.0000</b>	<b>11.2499</b>	<b>11.2499</b>	<b>3.6400e-003</b>	<b>0.0000</b>	<b>11.3409</b>

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**3.6 Pipe Connections - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>5.2000e-004</b>	<b>4.1000e-004</b>	<b>3.8800e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>1.0000e-005</b>	<b>1.2600e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1162</b>	<b>1.1162</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.1170</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>



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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**NCPWF Pipeline-Trenchless**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.06	1000sqft	0.05	2,057.63	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.





NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	2,060.00	2,057.63
tblLandUse	LandUseSquareFeet	2,060.00	2,057.63
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Connections
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation
tblOffRoadEquipment	UsageHours	4.00	8.00

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	2.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	476,375.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.9798	23.9852	13.4407	0.0260	0.1022	0.9780	1.0802	0.0271	0.8998	0.9269	0.0000	2,618.0795	2,618.0795	0.7843	0.0000	2,637.6871
2019	2.7454	25.2121	17.4981	0.0291	0.1788	1.4533	1.6321	0.0474	1.3596	1.4070	0.0000	2,850.1419	2,850.1419	0.7832	0.0000	2,867.4358
2020	1.3643	10.8625	8.0672	0.0148	0.0511	0.5304	0.5681	0.0136	0.5019	0.5122	0.0000	1,354.8194	1,354.8194	0.3442	0.0000	1,363.4248
<b>Maximum</b>	<b>2.7454</b>	<b>25.2121</b>	<b>17.4981</b>	<b>0.0291</b>	<b>0.1788</b>	<b>1.4533</b>	<b>1.6321</b>	<b>0.0474</b>	<b>1.3596</b>	<b>1.4070</b>	<b>0.0000</b>	<b>2,850.1419</b>	<b>2,850.1419</b>	<b>0.7843</b>	<b>0.0000</b>	<b>2,867.4358</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.6582	12.1160	14.3385	0.0260	0.1022	0.5147	0.6168	0.0271	0.5146	0.5417	0.0000	2,618.0795	2,618.0795	0.7843	0.0000	2,637.6871
2019	0.7111	13.3794	18.2991	0.0291	0.1788	0.7513	0.9301	0.0474	0.7512	0.7986	0.0000	2,850.1419	2,850.1419	0.7832	0.0000	2,867.4358
2020	0.4467	8.0793	8.5457	0.0148	0.0511	0.4311	0.4689	0.0136	0.4311	0.4414	0.0000	1,354.8194	1,354.8194	0.3442	0.0000	1,363.4248
<b>Maximum</b>	<b>0.7111</b>	<b>13.3794</b>	<b>18.2991</b>	<b>0.0291</b>	<b>0.1788</b>	<b>0.7513</b>	<b>0.9301</b>	<b>0.0474</b>	<b>0.7512</b>	<b>0.7986</b>	<b>0.0000</b>	<b>2,850.1419</b>	<b>2,850.1419</b>	<b>0.7843</b>	<b>0.0000</b>	<b>2,867.4358</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.18	44.10	-5.58	0.00	0.00	42.70	38.55	0.00	38.55	37.40	0.00	0.00	0.00	0.00	0.00	0.00

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.8000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.6000e-004</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	50.00	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.67	46.67	0.00	0.00	45.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	11/14/2018	4/2/2019	5	100	
2	Portal Excavation	Site Preparation	4/3/2019	8/20/2019	5	100	
3	Site Restoration	Site Preparation	8/21/2019	1/7/2020	5	100	
4	Pipe Installation	Building Construction	1/8/2020	5/26/2020	5	100	
5	Pipe Connections	Building Construction	5/27/2020	10/13/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Cranes	1	8.00	231	0.29
Pipe Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Welders	2	8.00	46	0.45
Pipe Connections	Other General Industrial Equipment	1	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation	4	2.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Connections	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9327	23.9488	13.0381	0.0249		0.9773	0.9773		0.8991	0.8991		2,507.510 1	2,507.510 1	0.7806		2,527.025 7
<b>Total</b>	<b>1.9327</b>	<b>23.9488</b>	<b>13.0381</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.9773</b>	<b>0.9773</b>	<b>0.0000</b>	<b>0.8991</b>	<b>0.8991</b>		<b>2,507.510 1</b>	<b>2,507.510 1</b>	<b>0.7806</b>		<b>2,527.025 7</b>



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0364	0.4026	1.1100e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		110.5694	110.5694	3.6800e-003		110.6614
<b>Total</b>	<b>0.0471</b>	<b>0.0364</b>	<b>0.4026</b>	<b>1.1100e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>110.5694</b>	<b>110.5694</b>	<b>3.6800e-003</b>		<b>110.6614</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,507.5101	2,507.5101	0.7806		2,527.0257
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,507.5101</b>	<b>2,507.5101</b>	<b>0.7806</b>		<b>2,527.0257</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0364	0.4026	1.1100e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		110.5694	110.5694	3.6800e-003		110.6614
<b>Total</b>	<b>0.0471</b>	<b>0.0364</b>	<b>0.4026</b>	<b>1.1100e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>110.5694</b>	<b>110.5694</b>	<b>3.6800e-003</b>		<b>110.6614</b>

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7848	21.8308	12.2022	0.0249		0.8732	0.8732		0.8034	0.8034		2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>1.7848</b>	<b>21.8308</b>	<b>12.2022</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.8732</b>	<b>0.8732</b>	<b>0.0000</b>	<b>0.8034</b>	<b>0.8034</b>		<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0326	0.3640	1.0800e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		107.2356	107.2356	3.3300e-003		107.3190
<b>Total</b>	<b>0.0435</b>	<b>0.0326</b>	<b>0.3640</b>	<b>1.0800e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>107.2356</b>	<b>107.2356</b>	<b>3.3300e-003</b>		<b>107.3190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0326	0.3640	1.0800e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		107.2356	107.2356	3.3300e-003		107.3190
<b>Total</b>	<b>0.0435</b>	<b>0.0326</b>	<b>0.3640</b>	<b>1.0800e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>107.2356</b>	<b>107.2356</b>	<b>3.3300e-003</b>		<b>107.3190</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6693	25.1551	16.8612	0.0272		1.4521	1.4521		1.3585	1.3585		2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>2.6693</b>	<b>25.1551</b>	<b>16.8612</b>	<b>0.0272</b>	<b>0.0000</b>	<b>1.4521</b>	<b>1.4521</b>	<b>0.0000</b>	<b>1.3585</b>	<b>1.3585</b>		<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0570	0.6369	1.8800e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		187.6623	187.6623	5.8400e-003		187.8082
<b>Total</b>	<b>0.0761</b>	<b>0.0570</b>	<b>0.6369</b>	<b>1.8800e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>187.6623</b>	<b>187.6623</b>	<b>5.8400e-003</b>		<b>187.8082</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

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**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0570	0.6369	1.8800e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		187.6623	187.6623	5.8400e-003		187.8082
<b>Total</b>	<b>0.0761</b>	<b>0.0570</b>	<b>0.6369</b>	<b>1.8800e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>187.6623</b>	<b>187.6623</b>	<b>5.8400e-003</b>		<b>187.8082</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1560</b>	<b>0.1560</b>	<b>0.0000</b>	<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

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**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0217	0.0163	0.1820	5.4000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		53.6178	53.6178	1.6700e-003		53.6595
<b>Total</b>	<b>0.0217</b>	<b>0.0163</b>	<b>0.1820</b>	<b>5.4000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>53.6178</b>	<b>53.6178</b>	<b>1.6700e-003</b>		<b>53.6595</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

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**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0217	0.0163	0.1820	5.4000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		53.6178	53.6178	1.6700e-003		53.6595
<b>Total</b>	<b>0.0217</b>	<b>0.0163</b>	<b>0.1820</b>	<b>5.4000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>53.6178</b>	<b>53.6178</b>	<b>1.6700e-003</b>		<b>53.6595</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>



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**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

**3.5 Pipe Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3471	10.6393	7.9291	0.0140		0.5292	0.5292		0.5007	0.5007		1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>1.3471</b>	<b>10.6393</b>	<b>7.9291</b>	<b>0.0140</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5007</b>	<b>0.5007</b>		<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Pipe Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0172</b>	<b>0.2231</b>	<b>0.1381</b>	<b>7.7000e-004</b>	<b>0.0378</b>	<b>1.1700e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1200e-003</b>	<b>0.0114</b>		<b>80.3058</b>	<b>80.3058</b>	<b>4.8900e-003</b>		<b>80.4278</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4295	7.8562	8.4077	0.0140		0.4300	0.4300		0.4300	0.4300	0.0000	1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>0.4295</b>	<b>7.8562</b>	<b>8.4077</b>	<b>0.0140</b>		<b>0.4300</b>	<b>0.4300</b>		<b>0.4300</b>	<b>0.4300</b>	<b>0.0000</b>	<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

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**3.5 Pipe Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0172</b>	<b>0.2231</b>	<b>0.1381</b>	<b>7.7000e-004</b>	<b>0.0378</b>	<b>1.1700e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1200e-003</b>	<b>0.0114</b>		<b>80.3058</b>	<b>80.3058</b>	<b>4.8900e-003</b>		<b>80.4278</b>

**3.6 Pipe Connections - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2353	2.1429	1.9898	2.5600e-003		0.1561	0.1561		0.1436	0.1436		248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.2353</b>	<b>2.1429</b>	<b>1.9898</b>	<b>2.5600e-003</b>		<b>0.1561</b>	<b>0.1561</b>		<b>0.1436</b>	<b>0.1436</b>		<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

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**3.6 Pipe Connections - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0102</b>	<b>7.3500e-003</b>	<b>0.0834</b>	<b>2.6000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>25.9623</b>	<b>25.9623</b>	<b>7.6000e-004</b>		<b>25.9812</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0633	1.4459	1.9525	2.5600e-003		0.1013	0.1013		0.1013	0.1013	0.0000	248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.0633</b>	<b>1.4459</b>	<b>1.9525</b>	<b>2.5600e-003</b>		<b>0.1013</b>	<b>0.1013</b>		<b>0.1013</b>	<b>0.1013</b>	<b>0.0000</b>	<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

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**3.6 Pipe Connections - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0102</b>	<b>7.3500e-003</b>	<b>0.0834</b>	<b>2.6000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>25.9623</b>	<b>25.9623</b>	<b>7.6000e-004</b>		<b>25.9812</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Unmitigated	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>		<b>4.8000e-004</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>2.6000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**NCPWF Pipeline-Trenchless**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.06	1000sqft	0.05	2,057.63	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	2,060.00	2,057.63
tblLandUse	LandUseSquareFeet	2,060.00	2,057.63
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Connections
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation
tblOffRoadEquipment	UsageHours	4.00	8.00



## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	2.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	476,375.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.9871	23.9896	13.4123	0.0260	0.1022	0.9780	1.0802	0.0271	0.8998	0.9269	0.0000	2,611.2703	2,611.2703	0.7841	0.0000	2,630.8725
2019	2.7574	25.2190	17.4507	0.0290	0.1788	1.4533	1.6321	0.0474	1.3596	1.4070	0.0000	2,838.5754	2,838.5754	0.7830	0.0000	2,855.8605
2020	1.3663	10.8628	8.0671	0.0147	0.0511	0.5304	0.5682	0.0136	0.5019	0.5122	0.0000	1,351.7033	1,351.7033	0.3444	0.0000	1,360.3143
<b>Maximum</b>	<b>2.7574</b>	<b>25.2190</b>	<b>17.4507</b>	<b>0.0290</b>	<b>0.1788</b>	<b>1.4533</b>	<b>1.6321</b>	<b>0.0474</b>	<b>1.3596</b>	<b>1.4070</b>	<b>0.0000</b>	<b>2,838.5754</b>	<b>2,838.5754</b>	<b>0.7841</b>	<b>0.0000</b>	<b>2,855.8605</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.6655	12.1205	14.3100	0.0260	0.1022	0.5147	0.6168	0.0271	0.5146	0.5417	0.0000	2,611.2703	2,611.2703	0.7841	0.0000	2,630.8725
2019	0.7231	13.3864	18.2517	0.0290	0.1788	0.7513	0.9301	0.0474	0.7512	0.7986	0.0000	2,838.5754	2,838.5754	0.7830	0.0000	2,855.8605
2020	0.4487	8.0797	8.5457	0.0147	0.0511	0.4312	0.4689	0.0136	0.4311	0.4414	0.0000	1,351.7033	1,351.7033	0.3444	0.0000	1,360.3143
<b>Maximum</b>	<b>0.7231</b>	<b>13.3864</b>	<b>18.2517</b>	<b>0.0290</b>	<b>0.1788</b>	<b>0.7513</b>	<b>0.9301</b>	<b>0.0474</b>	<b>0.7512</b>	<b>0.7986</b>	<b>0.0000</b>	<b>2,838.5754</b>	<b>2,838.5754</b>	<b>0.7841</b>	<b>0.0000</b>	<b>2,855.8605</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.93	44.09	-5.59	0.00	0.00	42.70	38.55	0.00	38.55	37.40	0.00	0.00	0.00	0.00	0.00	0.00

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.8000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.6000e-004</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	50.00	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.67	46.67	0.00	0.00	45.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	11/14/2018	4/2/2019	5	100	
2	Portal Excavation	Site Preparation	4/3/2019	8/20/2019	5	100	
3	Site Restoration	Site Preparation	8/21/2019	1/7/2020	5	100	
4	Pipe Installation	Building Construction	1/8/2020	5/26/2020	5	100	
5	Pipe Connections	Building Construction	5/27/2020	10/13/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Cranes	1	8.00	231	0.29
Pipe Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Welders	2	8.00	46	0.45
Pipe Connections	Other General Industrial Equipment	1	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation	4	2.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Connections	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9327	23.9488	13.0381	0.0249		0.9773	0.9773		0.8991	0.8991		2,507.510 1	2,507.510 1	0.7806		2,527.025 7
<b>Total</b>	<b>1.9327</b>	<b>23.9488</b>	<b>13.0381</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.9773</b>	<b>0.9773</b>	<b>0.0000</b>	<b>0.8991</b>	<b>0.8991</b>		<b>2,507.510 1</b>	<b>2,507.510 1</b>	<b>0.7806</b>		<b>2,527.025 7</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0544	0.0408	0.3742	1.0400e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		103.7601	103.7601	3.4700e-003		103.8468
<b>Total</b>	<b>0.0544</b>	<b>0.0408</b>	<b>0.3742</b>	<b>1.0400e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>103.7601</b>	<b>103.7601</b>	<b>3.4700e-003</b>		<b>103.8468</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,507.5101	2,507.5101	0.7806		2,527.0257
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,507.5101</b>	<b>2,507.5101</b>	<b>0.7806</b>		<b>2,527.0257</b>



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0544	0.0408	0.3742	1.0400e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		103.7601	103.7601	3.4700e-003		103.8468
<b>Total</b>	<b>0.0544</b>	<b>0.0408</b>	<b>0.3742</b>	<b>1.0400e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>103.7601</b>	<b>103.7601</b>	<b>3.4700e-003</b>		<b>103.8468</b>

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7848	21.8308	12.2022	0.0249		0.8732	0.8732		0.8034	0.8034		2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>1.7848</b>	<b>21.8308</b>	<b>12.2022</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.8732</b>	<b>0.8732</b>	<b>0.0000</b>	<b>0.8034</b>	<b>0.8034</b>		<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0365	0.3369	1.0100e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		100.6262	100.6262	3.1300e-003		100.7045
<b>Total</b>	<b>0.0503</b>	<b>0.0365</b>	<b>0.3369</b>	<b>1.0100e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>100.6262</b>	<b>100.6262</b>	<b>3.1300e-003</b>		<b>100.7045</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0365	0.3369	1.0100e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		100.6262	100.6262	3.1300e-003		100.7045
<b>Total</b>	<b>0.0503</b>	<b>0.0365</b>	<b>0.3369</b>	<b>1.0100e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>100.6262</b>	<b>100.6262</b>	<b>3.1300e-003</b>		<b>100.7045</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6693	25.1551	16.8612	0.0272		1.4521	1.4521		1.3585	1.3585		2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>2.6693</b>	<b>25.1551</b>	<b>16.8612</b>	<b>0.0272</b>	<b>0.0000</b>	<b>1.4521</b>	<b>1.4521</b>	<b>0.0000</b>	<b>1.3585</b>	<b>1.3585</b>		<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.0639	0.5895	1.7700e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		176.0959	176.0959	5.4800e-003		176.2329
<b>Total</b>	<b>0.0881</b>	<b>0.0639</b>	<b>0.5895</b>	<b>1.7700e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>176.0959</b>	<b>176.0959</b>	<b>5.4800e-003</b>		<b>176.2329</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.0639	0.5895	1.7700e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		176.0959	176.0959	5.4800e-003		176.2329
<b>Total</b>	<b>0.0881</b>	<b>0.0639</b>	<b>0.5895</b>	<b>1.7700e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>176.0959</b>	<b>176.0959</b>	<b>5.4800e-003</b>		<b>176.2329</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1560</b>	<b>0.1560</b>	<b>0.0000</b>	<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0252	0.0183	0.1684	5.0000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		50.3131	50.3131	1.5700e-003		50.3523
<b>Total</b>	<b>0.0252</b>	<b>0.0183</b>	<b>0.1684</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>50.3131</b>	<b>50.3131</b>	<b>1.5700e-003</b>		<b>50.3523</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0252	0.0183	0.1684	5.0000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		50.3131	50.3131	1.5700e-003		50.3523
<b>Total</b>	<b>0.0252</b>	<b>0.0183</b>	<b>0.1684</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>50.3131</b>	<b>50.3131</b>	<b>1.5700e-003</b>		<b>50.3523</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

**3.5 Pipe Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3471	10.6393	7.9291	0.0140		0.5292	0.5292		0.5007	0.5007		1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>1.3471</b>	<b>10.6393</b>	<b>7.9291</b>	<b>0.0140</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5007</b>	<b>0.5007</b>		<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Pipe Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0192</b>	<b>0.2235</b>	<b>0.1380</b>	<b>7.3000e-004</b>	<b>0.0378</b>	<b>1.2000e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1400e-003</b>	<b>0.0114</b>		<b>77.1897</b>	<b>77.1897</b>	<b>5.1100e-003</b>		<b>77.3174</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4295	7.8562	8.4077	0.0140		0.4300	0.4300		0.4300	0.4300	0.0000	1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>0.4295</b>	<b>7.8562</b>	<b>8.4077</b>	<b>0.0140</b>		<b>0.4300</b>	<b>0.4300</b>		<b>0.4300</b>	<b>0.4300</b>	<b>0.0000</b>	<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Pipe Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0192</b>	<b>0.2235</b>	<b>0.1380</b>	<b>7.3000e-004</b>	<b>0.0378</b>	<b>1.2000e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1400e-003</b>	<b>0.0114</b>		<b>77.1897</b>	<b>77.1897</b>	<b>5.1100e-003</b>		<b>77.3174</b>

**3.6 Pipe Connections - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2353	2.1429	1.9898	2.5600e-003		0.1561	0.1561		0.1436	0.1436		248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.2353</b>	<b>2.1429</b>	<b>1.9898</b>	<b>2.5600e-003</b>		<b>0.1561</b>	<b>0.1561</b>		<b>0.1436</b>	<b>0.1436</b>		<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.6 Pipe Connections - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0118</b>	<b>8.2500e-003</b>	<b>0.0770</b>	<b>2.4000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>24.3618</b>	<b>24.3618</b>	<b>7.1000e-004</b>		<b>24.3795</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0633	1.4459	1.9525	2.5600e-003		0.1013	0.1013		0.1013	0.1013	0.0000	248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.0633</b>	<b>1.4459</b>	<b>1.9525</b>	<b>2.5600e-003</b>		<b>0.1013</b>	<b>0.1013</b>		<b>0.1013</b>	<b>0.1013</b>	<b>0.0000</b>	<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.6 Pipe Connections - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0118</b>	<b>8.2500e-003</b>	<b>0.0770</b>	<b>2.4000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>24.3618</b>	<b>24.3618</b>	<b>7.1000e-004</b>		<b>24.3795</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Unmitigated	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>		<b>4.8000e-004</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>2.6000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCWRP Expansion - San Diego County APCD Air District, Annual

**NCWRP Expansion**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	241.03	1000sqft	5.53	241,034.00	49

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCWRP Expansion - San Diego County APCD Air District, Annual

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Grading - See Section 7.1.2 for Construction Details.

Demolition - No demolition of structures.

Trips and VMT - See Section 7.1.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - Based on the traffic information study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment must be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	230.00	428.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	5/14/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	2/26/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	9/24/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	9/25/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	2/27/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	75.00	0.00
tblGrading	MaterialExported	0.00	1,644.00
tblLandUse	Population	0.00	49.00

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tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	298.88	8.83



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tblTripsAndVMT	HaulingTripNumber	206.00	1,009.00
tblTripsAndVMT	WorkerTripNumber	101.00	102.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	28.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.35
tblVehicleTrips	SU_TR	0.68	0.10
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	55,738,187.50	312,000.00

## 2.0 Emissions Summary

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1250	1.2664	0.7532	1.3300e-003	4.2300e-003	0.0640	0.0682	1.1300e-003	0.0596	0.0607	0.0000	119.9844	119.9844	0.0321	0.0000	120.7863
2019	0.4234	4.2925	2.8428	5.8400e-003	0.5106	0.2038	0.7144	0.2642	0.1899	0.4541	0.0000	523.5068	523.5068	0.1204	0.0000	526.5171
2020	0.3724	3.2921	2.8030	6.4000e-003	0.1419	0.1541	0.2960	0.0385	0.1472	0.1857	0.0000	568.2134	568.2134	0.0763	0.0000	570.1206
2021	1.3322	1.9430	1.8239	3.8600e-003	0.0675	0.0898	0.1572	0.0182	0.0849	0.1031	0.0000	340.8575	340.8575	0.0615	0.0000	342.3938
<b>Maximum</b>	<b>1.3322</b>	<b>4.2925</b>	<b>2.8428</b>	<b>6.4000e-003</b>	<b>0.5106</b>	<b>0.2038</b>	<b>0.7144</b>	<b>0.2642</b>	<b>0.1899</b>	<b>0.4541</b>	<b>0.0000</b>	<b>568.2134</b>	<b>568.2134</b>	<b>0.1204</b>	<b>0.0000</b>	<b>570.1206</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0486	0.7467	0.8288	1.3300e-003	4.2300e-003	0.0361	0.0403	1.1300e-003	0.0352	0.0364	0.0000	119.9843	119.9843	0.0321	0.0000	120.7862
2019	0.2441	3.2311	2.9549	5.8400e-003	0.2621	0.1500	0.4121	0.1277	0.1439	0.2716	0.0000	523.5063	523.5063	0.1204	0.0000	526.5166
2020	0.2506	2.8336	2.8922	6.4000e-003	0.1419	0.1389	0.2808	0.0385	0.1346	0.1731	0.0000	568.2130	568.2130	0.0763	0.0000	570.1203
2021	1.2504	1.6290	1.9528	3.8600e-003	0.0675	0.0802	0.1476	0.0182	0.0780	0.0962	0.0000	340.8572	340.8572	0.0615	0.0000	342.3935
<b>Maximum</b>	<b>1.2504</b>	<b>3.2311</b>	<b>2.9549</b>	<b>6.4000e-003</b>	<b>0.2621</b>	<b>0.1500</b>	<b>0.4121</b>	<b>0.1277</b>	<b>0.1439</b>	<b>0.2716</b>	<b>0.0000</b>	<b>568.2130</b>	<b>568.2130</b>	<b>0.1204</b>	<b>0.0000</b>	<b>570.1203</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>20.39</b>	<b>21.81</b>	<b>-4.93</b>	<b>0.00</b>	<b>34.31</b>	<b>20.82</b>	<b>28.73</b>	<b>42.40</b>	<b>18.63</b>	<b>28.16</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2018	12-31-2018	1.3857	0.7921
2	1-1-2019	3-31-2019	1.2477	0.8166
3	4-1-2019	6-30-2019	1.2268	0.9125
4	7-1-2019	9-30-2019	1.2249	0.9159
5	10-1-2019	12-31-2019	1.0080	0.8239
6	1-1-2020	3-31-2020	0.9093	0.7653
7	4-1-2020	6-30-2020	0.9065	0.7626
8	7-1-2020	9-30-2020	0.9165	0.7710

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9	10-1-2020	12-31-2020	0.9192	0.7737
10	1-1-2021	3-31-2021	0.8173	0.7103
11	4-1-2021	6-30-2021	0.3985	0.3461
12	7-1-2021	9-30-2021	1.1520	1.0196
		Highest	1.3857	1.0196

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636
Waste						0.0000	0.0000		0.0000	0.0000	1.7924	0.0000	1.7924	0.1059	0.0000	4.4406
Water						0.0000	0.0000		0.0000	0.0000	0.0990	1.3277	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>	<b>1.0663</b>	<b>0.0632</b>	<b>0.1807</b>	<b>6.2000e-004</b>	<b>0.0524</b>	<b>6.2000e-004</b>	<b>0.0530</b>	<b>0.0140</b>	<b>5.9000e-004</b>	<b>0.0146</b>	<b>1.8914</b>	<b>58.2219</b>	<b>60.1133</b>	<b>0.1191</b>	<b>2.5000e-004</b>	<b>63.1658</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636
Waste						0.0000	0.0000		0.0000	0.0000	1.7924	0.0000	1.7924	0.1059	0.0000	4.4406
Water						0.0000	0.0000		0.0000	0.0000	0.0990	1.3277	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>	<b>1.0663</b>	<b>0.0632</b>	<b>0.1807</b>	<b>6.2000e-004</b>	<b>0.0524</b>	<b>6.2000e-004</b>	<b>0.0530</b>	<b>0.0140</b>	<b>5.9000e-004</b>	<b>0.0146</b>	<b>1.8914</b>	<b>58.2219</b>	<b>60.1133</b>	<b>0.1191</b>	<b>2.5000e-004</b>	<b>63.1658</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	2/26/2019	5	107	
2	Grading	Grading	2/27/2019	9/24/2019	5	150	
3	Building Construction	Building Construction	9/25/2019	5/14/2021	5	428	
4	Architectural Coating	Architectural Coating	7/9/2021	12/6/2021	5	107	
5	Paving	Paving	7/9/2021	12/6/2021	5	107	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 361,551; Non-Residential Outdoor: 120,517; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Architectural Coating	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
	Concrete/Industrial Saws	1	8.00	81	0.73
	Dumpers/Tenders	1	8.00	16	0.38
Paving	Paving Equipment	2	8.00	132	0.36
	Excavators	1	8.00	158	0.38
	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	102.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	16.00	0.00	1,009.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1227	1.2646	0.7360	1.2800e-003		0.0640	0.0640		0.0596	0.0596	0.0000	115.9095	115.9095	0.0319	0.0000	116.7078
<b>Total</b>	<b>0.1227</b>	<b>1.2646</b>	<b>0.7360</b>	<b>1.2800e-003</b>		<b>0.0640</b>	<b>0.0640</b>		<b>0.0596</b>	<b>0.0596</b>	<b>0.0000</b>	<b>115.9095</b>	<b>115.9095</b>	<b>0.0319</b>	<b>0.0000</b>	<b>116.7078</b>



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**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	1.7900e-003	0.0171	5.0000e-005	4.2300e-003	3.0000e-005	4.2700e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	4.0750	4.0750	1.4000e-004	0.0000	4.0785
<b>Total</b>	<b>2.2600e-003</b>	<b>1.7900e-003</b>	<b>0.0171</b>	<b>5.0000e-005</b>	<b>4.2300e-003</b>	<b>3.0000e-005</b>	<b>4.2700e-003</b>	<b>1.1300e-003</b>	<b>3.0000e-005</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>4.0750</b>	<b>4.0750</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.0785</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0463	0.7449	0.8117	1.2800e-003		0.0360	0.0360		0.0352	0.0352	0.0000	115.9093	115.9093	0.0319	0.0000	116.7077
<b>Total</b>	<b>0.0463</b>	<b>0.7449</b>	<b>0.8117</b>	<b>1.2800e-003</b>		<b>0.0360</b>	<b>0.0360</b>		<b>0.0352</b>	<b>0.0352</b>	<b>0.0000</b>	<b>115.9093</b>	<b>115.9093</b>	<b>0.0319</b>	<b>0.0000</b>	<b>116.7077</b>

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**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	1.7900e-003	0.0171	5.0000e-005	4.2300e-003	3.0000e-005	4.2700e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	4.0750	4.0750	1.4000e-004	0.0000	4.0785
<b>Total</b>	<b>2.2600e-003</b>	<b>1.7900e-003</b>	<b>0.0171</b>	<b>5.0000e-005</b>	<b>4.2300e-003</b>	<b>3.0000e-005</b>	<b>4.2700e-003</b>	<b>1.1300e-003</b>	<b>3.0000e-005</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>4.0750</b>	<b>4.0750</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.0785</b>

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0720	0.7336	0.4522	8.0000e-004		0.0368	0.0368		0.0342	0.0342	0.0000	70.9840	70.9840	0.0198	0.0000	71.4777
<b>Total</b>	<b>0.0720</b>	<b>0.7336</b>	<b>0.4522</b>	<b>8.0000e-004</b>		<b>0.0368</b>	<b>0.0368</b>		<b>0.0342</b>	<b>0.0342</b>	<b>0.0000</b>	<b>70.9840</b>	<b>70.9840</b>	<b>0.0198</b>	<b>0.0000</b>	<b>71.4777</b>

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**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	9.9000e-004	9.6000e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4551	2.4551	8.0000e-005	0.0000	2.4570
<b>Total</b>	<b>1.2900e-003</b>	<b>9.9000e-004</b>	<b>9.6000e-003</b>	<b>3.0000e-005</b>	<b>2.6300e-003</b>	<b>2.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>2.0000e-005</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>2.4551</b>	<b>2.4551</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.4570</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0284	0.4577	0.5033	8.0000e-004		0.0222	0.0222		0.0217	0.0217	0.0000	70.9839	70.9839	0.0198	0.0000	71.4776
<b>Total</b>	<b>0.0284</b>	<b>0.4577</b>	<b>0.5033</b>	<b>8.0000e-004</b>		<b>0.0222</b>	<b>0.0222</b>		<b>0.0217</b>	<b>0.0217</b>	<b>0.0000</b>	<b>70.9839</b>	<b>70.9839</b>	<b>0.0198</b>	<b>0.0000</b>	<b>71.4776</b>

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**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	9.9000e-004	9.6000e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4551	2.4551	8.0000e-005	0.0000	2.4570
<b>Total</b>	<b>1.2900e-003</b>	<b>9.9000e-004</b>	<b>9.6000e-003</b>	<b>3.0000e-005</b>	<b>2.6300e-003</b>	<b>2.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>2.0000e-005</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>2.4551</b>	<b>2.4551</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.4570</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4518	0.0000	0.4518	0.2483	0.0000	0.2483	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2303	2.4368	1.5384	2.8000e-003		0.1188	0.1188		0.1096	0.1096	0.0000	247.9256	247.9256	0.0757	0.0000	249.8184
<b>Total</b>	<b>0.2303</b>	<b>2.4368</b>	<b>1.5384</b>	<b>2.8000e-003</b>	<b>0.4518</b>	<b>0.1188</b>	<b>0.5705</b>	<b>0.2483</b>	<b>0.1096</b>	<b>0.3579</b>	<b>0.0000</b>	<b>247.9256</b>	<b>247.9256</b>	<b>0.0757</b>	<b>0.0000</b>	<b>249.8184</b>

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**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.1546	0.0337	4.0000e-004	8.6300e-003	5.8000e-004	9.2100e-003	2.3700e-003	5.5000e-004	2.9200e-003	0.0000	39.3305	39.3305	3.5600e-003	0.0000	39.4196
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7300e-003	3.6300e-003	0.0351	1.0000e-004	9.6200e-003	7.0000e-005	9.6900e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.9820	8.9820	2.9000e-004	0.0000	8.9892
<b>Total</b>	<b>9.1600e-003</b>	<b>0.1582</b>	<b>0.0688</b>	<b>5.0000e-004</b>	<b>0.0183</b>	<b>6.5000e-004</b>	<b>0.0189</b>	<b>4.9300e-003</b>	<b>6.1000e-004</b>	<b>5.5400e-003</b>	<b>0.0000</b>	<b>48.3125</b>	<b>48.3125</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>48.4088</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2033	0.0000	0.2033	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1323	1.8096	1.5840	2.8000e-003		0.0866	0.0866		0.0823	0.0823	0.0000	247.9253	247.9253	0.0757	0.0000	249.8181
<b>Total</b>	<b>0.1323</b>	<b>1.8096</b>	<b>1.5840</b>	<b>2.8000e-003</b>	<b>0.2033</b>	<b>0.0866</b>	<b>0.2899</b>	<b>0.1117</b>	<b>0.0823</b>	<b>0.1940</b>	<b>0.0000</b>	<b>247.9253</b>	<b>247.9253</b>	<b>0.0757</b>	<b>0.0000</b>	<b>249.8181</b>

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**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.1546	0.0337	4.0000e-004	8.6300e-003	5.8000e-004	9.2100e-003	2.3700e-003	5.5000e-004	2.9200e-003	0.0000	39.3305	39.3305	3.5600e-003	0.0000	39.4196
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7300e-003	3.6300e-003	0.0351	1.0000e-004	9.6200e-003	7.0000e-005	9.6900e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.9820	8.9820	2.9000e-004	0.0000	8.9892
<b>Total</b>	<b>9.1600e-003</b>	<b>0.1582</b>	<b>0.0688</b>	<b>5.0000e-004</b>	<b>0.0183</b>	<b>6.5000e-004</b>	<b>0.0189</b>	<b>4.9300e-003</b>	<b>6.1000e-004</b>	<b>5.5400e-003</b>	<b>0.0000</b>	<b>48.3125</b>	<b>48.3125</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>48.4088</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7765	0.6221	1.0400e-003		0.0461	0.0461		0.0441	0.0441	0.0000	89.9134	89.9134	0.0172	0.0000	90.3430
<b>Total</b>	<b>0.0900</b>	<b>0.7765</b>	<b>0.6221</b>	<b>1.0400e-003</b>		<b>0.0461</b>	<b>0.0461</b>		<b>0.0441</b>	<b>0.0441</b>	<b>0.0000</b>	<b>89.9134</b>	<b>89.9134</b>	<b>0.0172</b>	<b>0.0000</b>	<b>90.3430</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5600e-003	0.1757	0.0472	3.8000e-004	9.2900e-003	1.2200e-003	0.0105	2.6800e-003	1.1600e-003	3.8500e-003	0.0000	37.1949	37.1949	2.9900e-003	0.0000	37.2695
Worker	0.0141	0.0108	0.1045	3.0000e-004	0.0286	2.1000e-004	0.0288	7.6100e-003	1.9000e-004	7.8000e-003	0.0000	26.7213	26.7213	8.6000e-004	0.0000	26.7428
<b>Total</b>	<b>0.0206</b>	<b>0.1865</b>	<b>0.1517</b>	<b>6.8000e-004</b>	<b>0.0379</b>	<b>1.4300e-003</b>	<b>0.0394</b>	<b>0.0103</b>	<b>1.3500e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>63.9162</b>	<b>63.9162</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>64.0124</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0523	0.6180	0.6375	1.0400e-003		0.0392	0.0392		0.0380	0.0380	0.0000	89.9133	89.9133	0.0172	0.0000	90.3429
<b>Total</b>	<b>0.0523</b>	<b>0.6180</b>	<b>0.6375</b>	<b>1.0400e-003</b>		<b>0.0392</b>	<b>0.0392</b>		<b>0.0380</b>	<b>0.0380</b>	<b>0.0000</b>	<b>89.9133</b>	<b>89.9133</b>	<b>0.0172</b>	<b>0.0000</b>	<b>90.3429</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5600e-003	0.1757	0.0472	3.8000e-004	9.2900e-003	1.2200e-003	0.0105	2.6800e-003	1.1600e-003	3.8500e-003	0.0000	37.1949	37.1949	2.9900e-003	0.0000	37.2695
Worker	0.0141	0.0108	0.1045	3.0000e-004	0.0286	2.1000e-004	0.0288	7.6100e-003	1.9000e-004	7.8000e-003	0.0000	26.7213	26.7213	8.6000e-004	0.0000	26.7428
<b>Total</b>	<b>0.0206</b>	<b>0.1865</b>	<b>0.1517</b>	<b>6.8000e-004</b>	<b>0.0379</b>	<b>1.4300e-003</b>	<b>0.0394</b>	<b>0.0103</b>	<b>1.3500e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>63.9162</b>	<b>63.9162</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>64.0124</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3032	2.6583	2.2868	3.9100e-003		0.1504	0.1504		0.1437	0.1437	0.0000	333.0921	333.0921	0.0628	0.0000	334.6617
<b>Total</b>	<b>0.3032</b>	<b>2.6583</b>	<b>2.2868</b>	<b>3.9100e-003</b>		<b>0.1504</b>	<b>0.1504</b>		<b>0.1437</b>	<b>0.1437</b>	<b>0.0000</b>	<b>333.0921</b>	<b>333.0921</b>	<b>0.0628</b>	<b>0.0000</b>	<b>334.6617</b>



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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.5973	0.1587	1.4200e-003	0.0348	2.9100e-003	0.0377	0.0100	2.7900e-003	0.0128	0.0000	138.2634	138.2634	0.0106	0.0000	138.5283
Worker	0.0493	0.0365	0.3576	1.0700e-003	0.1072	7.7000e-004	0.1079	0.0285	7.1000e-004	0.0292	0.0000	96.8579	96.8579	2.9100e-003	0.0000	96.9306
<b>Total</b>	<b>0.0692</b>	<b>0.6338</b>	<b>0.5162</b>	<b>2.4900e-003</b>	<b>0.1419</b>	<b>3.6800e-003</b>	<b>0.1456</b>	<b>0.0385</b>	<b>3.5000e-003</b>	<b>0.0420</b>	<b>0.0000</b>	<b>235.1213</b>	<b>235.1213</b>	<b>0.0135</b>	<b>0.0000</b>	<b>235.4589</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1814	2.1999	2.3760	3.9100e-003		0.1352	0.1352		0.1311	0.1311	0.0000	333.0917	333.0917	0.0628	0.0000	334.6613
<b>Total</b>	<b>0.1814</b>	<b>2.1999</b>	<b>2.3760</b>	<b>3.9100e-003</b>		<b>0.1352</b>	<b>0.1352</b>		<b>0.1311</b>	<b>0.1311</b>	<b>0.0000</b>	<b>333.0917</b>	<b>333.0917</b>	<b>0.0628</b>	<b>0.0000</b>	<b>334.6613</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.5973	0.1587	1.4200e-003	0.0348	2.9100e-003	0.0377	0.0100	2.7900e-003	0.0128	0.0000	138.2634	138.2634	0.0106	0.0000	138.5283
Worker	0.0493	0.0365	0.3576	1.0700e-003	0.1072	7.7000e-004	0.1079	0.0285	7.1000e-004	0.0292	0.0000	96.8579	96.8579	2.9100e-003	0.0000	96.9306
<b>Total</b>	<b>0.0692</b>	<b>0.6338</b>	<b>0.5162</b>	<b>2.4900e-003</b>	<b>0.1419</b>	<b>3.6800e-003</b>	<b>0.1456</b>	<b>0.0385</b>	<b>3.5000e-003</b>	<b>0.0420</b>	<b>0.0000</b>	<b>235.1213</b>	<b>235.1213</b>	<b>0.0135</b>	<b>0.0000</b>	<b>235.4589</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	0.8878	0.8245	1.4300e-003		0.0476	0.0476		0.0455	0.0455	0.0000	122.0526	122.0526	0.0226	0.0000	122.6166
<b>Total</b>	<b>0.1000</b>	<b>0.8878</b>	<b>0.8245</b>	<b>1.4300e-003</b>		<b>0.0476</b>	<b>0.0476</b>		<b>0.0455</b>	<b>0.0455</b>	<b>0.0000</b>	<b>122.0526</b>	<b>122.0526</b>	<b>0.0226</b>	<b>0.0000</b>	<b>122.6166</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9400e-003	0.1973	0.0526	5.1000e-004	0.0127	4.2000e-004	0.0132	3.6800e-003	4.0000e-004	4.0800e-003	0.0000	50.1965	50.1965	3.7300e-003	0.0000	50.2896
Worker	0.0170	0.0121	0.1223	3.8000e-004	0.0393	2.8000e-004	0.0395	0.0104	2.6000e-004	0.0107	0.0000	34.2976	34.2976	9.8000e-004	0.0000	34.3222
<b>Total</b>	<b>0.0230</b>	<b>0.2095</b>	<b>0.1749</b>	<b>8.9000e-004</b>	<b>0.0520</b>	<b>7.0000e-004</b>	<b>0.0527</b>	<b>0.0141</b>	<b>6.6000e-004</b>	<b>0.0148</b>	<b>0.0000</b>	<b>84.4941</b>	<b>84.4941</b>	<b>4.7100e-003</b>	<b>0.0000</b>	<b>84.6118</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0616	0.7665	0.8671	1.4300e-003		0.0455	0.0455		0.0443	0.0443	0.0000	122.0524	122.0524	0.0226	0.0000	122.6165
<b>Total</b>	<b>0.0616</b>	<b>0.7665</b>	<b>0.8671</b>	<b>1.4300e-003</b>		<b>0.0455</b>	<b>0.0455</b>		<b>0.0443</b>	<b>0.0443</b>	<b>0.0000</b>	<b>122.0524</b>	<b>122.0524</b>	<b>0.0226</b>	<b>0.0000</b>	<b>122.6165</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9400e-003	0.1973	0.0526	5.1000e-004	0.0127	4.2000e-004	0.0132	3.6800e-003	4.0000e-004	4.0800e-003	0.0000	50.1965	50.1965	3.7300e-003	0.0000	50.2896
Worker	0.0170	0.0121	0.1223	3.8000e-004	0.0393	2.8000e-004	0.0395	0.0104	2.6000e-004	0.0107	0.0000	34.2976	34.2976	9.8000e-004	0.0000	34.3222
<b>Total</b>	<b>0.0230</b>	<b>0.2095</b>	<b>0.1749</b>	<b>8.9000e-004</b>	<b>0.0520</b>	<b>7.0000e-004</b>	<b>0.0527</b>	<b>0.0141</b>	<b>6.6000e-004</b>	<b>0.0148</b>	<b>0.0000</b>	<b>84.4941</b>	<b>84.4941</b>	<b>4.7100e-003</b>	<b>0.0000</b>	<b>84.6118</b>

**3.5 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1172					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0376	0.3667	0.2350	5.2000e-004		0.0172	0.0172		0.0163	0.0163	0.0000	45.1536	45.1536	9.9600e-003	0.0000	45.4027
<b>Total</b>	<b>1.1548</b>	<b>0.3667</b>	<b>0.2350</b>	<b>5.2000e-004</b>		<b>0.0172</b>	<b>0.0172</b>		<b>0.0163</b>	<b>0.0163</b>	<b>0.0000</b>	<b>45.1536</b>	<b>45.1536</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>45.4027</b>

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**3.5 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7200e-003	2.6500e-003	0.0267	8.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.4956	7.4956	2.1000e-004	0.0000	7.5010
<b>Total</b>	<b>3.7200e-003</b>	<b>2.6500e-003</b>	<b>0.0267</b>	<b>8.0000e-005</b>	<b>8.5800e-003</b>	<b>6.0000e-005</b>	<b>8.6400e-003</b>	<b>2.2800e-003</b>	<b>6.0000e-005</b>	<b>2.3400e-003</b>	<b>0.0000</b>	<b>7.4956</b>	<b>7.4956</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>7.5010</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1172					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.2425	0.2940	5.2000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	45.1535	45.1535	9.9600e-003	0.0000	45.4026
<b>Total</b>	<b>1.1290</b>	<b>0.2425</b>	<b>0.2940</b>	<b>5.2000e-004</b>		<b>0.0123</b>	<b>0.0123</b>		<b>0.0123</b>	<b>0.0123</b>	<b>0.0000</b>	<b>45.1535</b>	<b>45.1535</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>45.4026</b>

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**3.5 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7200e-003	2.6500e-003	0.0267	8.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.4956	7.4956	2.1000e-004	0.0000	7.5010
<b>Total</b>	<b>3.7200e-003</b>	<b>2.6500e-003</b>	<b>0.0267</b>	<b>8.0000e-005</b>	<b>8.5800e-003</b>	<b>6.0000e-005</b>	<b>8.6400e-003</b>	<b>2.2800e-003</b>	<b>6.0000e-005</b>	<b>2.3400e-003</b>	<b>0.0000</b>	<b>7.4956</b>	<b>7.4956</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>7.5010</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0478	0.4743	0.5414	8.7000e-004		0.0242	0.0242		0.0223	0.0223	0.0000	75.6652	75.6652	0.0238	0.0000	76.2610
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0478</b>	<b>0.4743</b>	<b>0.5414</b>	<b>8.7000e-004</b>		<b>0.0242</b>	<b>0.0242</b>		<b>0.0223</b>	<b>0.0223</b>	<b>0.0000</b>	<b>75.6652</b>	<b>75.6652</b>	<b>0.0238</b>	<b>0.0000</b>	<b>76.2610</b>

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**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9800e-003	2.1200e-003	0.0214	7.0000e-005	6.8600e-003	5.0000e-005	6.9100e-003	1.8200e-003	4.0000e-005	1.8700e-003	0.0000	5.9965	5.9965	1.7000e-004	0.0000	6.0008
<b>Total</b>	<b>2.9800e-003</b>	<b>2.1200e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8600e-003</b>	<b>5.0000e-005</b>	<b>6.9100e-003</b>	<b>1.8200e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>5.9965</b>	<b>5.9965</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>6.0008</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0302	0.4057	0.5687	8.7000e-004		0.0215	0.0215		0.0207	0.0207	0.0000	75.6651	75.6651	0.0238	0.0000	76.2609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0302</b>	<b>0.4057</b>	<b>0.5687</b>	<b>8.7000e-004</b>		<b>0.0215</b>	<b>0.0215</b>		<b>0.0207</b>	<b>0.0207</b>	<b>0.0000</b>	<b>75.6651</b>	<b>75.6651</b>	<b>0.0238</b>	<b>0.0000</b>	<b>76.2609</b>

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**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9800e-003	2.1200e-003	0.0214	7.0000e-005	6.8600e-003	5.0000e-005	6.9100e-003	1.8200e-003	4.0000e-005	1.8700e-003	0.0000	5.9965	5.9965	1.7000e-004	0.0000	6.0008
<b>Total</b>	<b>2.9800e-003</b>	<b>2.1200e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8600e-003</b>	<b>5.0000e-005</b>	<b>6.9100e-003</b>	<b>1.8200e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>5.9965</b>	<b>5.9965</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>6.0008</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636
Unmitigated	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	24.10	83.84	24.10	138,996	138,996
Total	24.10	83.84	24.10	138,996	138,996

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
Unmitigated	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
<b>Total</b>	<b>1.0533</b>	<b>2.0000e-005</b>	<b>2.2300e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.3100e-003</b>	<b>4.3100e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-003</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
<b>Total</b>	<b>1.0533</b>	<b>2.0000e-005</b>	<b>2.2300e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.3100e-003</b>	<b>4.3100e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.4267	0.0102	2.5000e-004	1.7570
Unmitigated	1.4267	0.0102	2.5000e-004	1.7570

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.312 / 0	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>		<b>1.4267</b>	<b>0.0102</b>	<b>2.5000e-004</b>	<b>1.7570</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.312 / 0	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>		<b>1.4267</b>	<b>0.0102</b>	<b>2.5000e-004</b>	<b>1.7570</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7924	0.1059	0.0000	4.4406
Unmitigated	1.7924	0.1059	0.0000	4.4406



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	8.83	1.7924	0.1059	0.0000	4.4406
<b>Total</b>		<b>1.7924</b>	<b>0.1059</b>	<b>0.0000</b>	<b>4.4406</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	8.83	1.7924	0.1059	0.0000	4.4406
<b>Total</b>		<b>1.7924</b>	<b>0.1059</b>	<b>0.0000</b>	<b>4.4406</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## NCWRP Expansion - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCWRP Expansion - San Diego County APCD Air District, Summer

**NCWRP Expansion**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	241.03	1000sqft	5.53	241,034.00	49

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCWRP Expansion - San Diego County APCD Air District, Summer

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Grading - See Section 7.1.2 for Construction Details.

Demolition - No demolition of structures.

Trips and VMT - See Section 7.1.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - Based on the traffic information study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment must be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.



## NCWRP Expansion - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	230.00	428.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	5/14/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	2/26/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	9/24/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	9/25/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	2/27/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	75.00	0.00
tblGrading	MaterialExported	0.00	1,644.00
tblLandUse	Population	0.00	49.00

NCWRP Expansion - San Diego County APCD Air District, Summer

tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	298.88	8.83

## NCWRP Expansion - San Diego County APCD Air District, Summer

tblTripsAndVMT	HaulingTripNumber	206.00	1,009.00
tblTripsAndVMT	WorkerTripNumber	101.00	102.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	28.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.35
tblVehicleTrips	SU_TR	0.68	0.10
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	55,738,187.50	312,000.00

## 2.0 Emissions Summary

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NCWRP Expansion - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	3.7871	38.3716	22.8518	0.0403	0.1314	1.9395	2.0709	0.0349	1.8057	1.8406	0.0000	4,015.3224	4,015.3224	1.0716	0.0000	4,042.1131
2019	3.5762	35.8268	22.5551	0.0498	6.2726	1.7958	7.8645	3.3775	1.6705	4.8468	0.0000	4,903.4578	4,903.4578	1.1687	0.0000	4,919.9801
2020	2.8380	25.0550	21.4967	0.0494	1.1087	1.1760	2.2847	0.3002	1.1231	1.4233	0.0000	4,838.5958	4,838.5958	0.6408	0.0000	4,854.6145
2021	22.6020	22.7987	20.9204	0.0490	1.1087	1.0061	2.1148	0.3002	0.9606	1.2608	0.0000	4,799.0525	4,799.0525	0.7047	0.0000	4,814.6799
<b>Maximum</b>	<b>22.6020</b>	<b>38.3716</b>	<b>22.8518</b>	<b>0.0498</b>	<b>6.2726</b>	<b>1.9395</b>	<b>7.8645</b>	<b>3.3775</b>	<b>1.8057</b>	<b>4.8468</b>	<b>0.0000</b>	<b>4,903.4578</b>	<b>4,903.4578</b>	<b>1.1687</b>	<b>0.0000</b>	<b>4,919.9801</b>



NCWRP Expansion - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831
<b>Total</b>	<b>5.9655</b>	<b>0.8580</b>	<b>2.6526</b>	<b>9.1200e-003</b>	<b>0.7572</b>	<b>8.7600e-003</b>	<b>0.7659</b>	<b>0.2024</b>	<b>8.2300e-003</b>	<b>0.2106</b>		<b>925.0746</b>	<b>925.0746</b>	<b>0.0466</b>	<b>0.0000</b>	<b>926.2394</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831
<b>Total</b>	<b>5.9655</b>	<b>0.8580</b>	<b>2.6526</b>	<b>9.1200e-003</b>	<b>0.7572</b>	<b>8.7600e-003</b>	<b>0.7659</b>	<b>0.2024</b>	<b>8.2300e-003</b>	<b>0.2106</b>		<b>925.0746</b>	<b>925.0746</b>	<b>0.0466</b>	<b>0.0000</b>	<b>926.2394</b>

## NCWRP Expansion - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	2/26/2019	5	107	
2	Grading	Grading	2/27/2019	9/24/2019	5	150	
3	Building Construction	Building Construction	9/25/2019	5/14/2021	5	428	
4	Architectural Coating	Architectural Coating	7/9/2021	12/6/2021	5	107	
5	Paving	Paving	7/9/2021	12/6/2021	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 361,551; Non-Residential Outdoor: 120,517; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## NCWRP Expansion - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Architectural Coating	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
	Concrete/Industrial Saws	1	8.00	81	0.73
	Dumpers/Tenders	1	8.00	16	0.38
Paving	Paving Equipment	2	8.00	132	0.36
	Excavators	1	8.00	158	0.38
	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

NCWRP Expansion - San Diego County APCD Air District, Summer

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	102.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	16.00	0.00	1,009.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>3.7190</b>	<b>38.3225</b>	<b>22.3040</b>	<b>0.0388</b>		<b>1.9386</b>	<b>1.9386</b>		<b>1.8048</b>	<b>1.8048</b>		<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0491	0.5477	1.4400e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		143.5559	143.5559	4.9100e-003		143.6787
<b>Total</b>	<b>0.0681</b>	<b>0.0491</b>	<b>0.5477</b>	<b>1.4400e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>143.5559</b>	<b>143.5559</b>	<b>4.9100e-003</b>		<b>143.6787</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4031	22.5716	24.5968	0.0388		1.0913	1.0913		1.0669	1.0669	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>1.4031</b>	<b>22.5716</b>	<b>24.5968</b>	<b>0.0388</b>		<b>1.0913</b>	<b>1.0913</b>		<b>1.0669</b>	<b>1.0669</b>	<b>0.0000</b>	<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0491	0.5477	1.4400e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		143.5559	143.5559	4.9100e-003		143.6787
<b>Total</b>	<b>0.0681</b>	<b>0.0491</b>	<b>0.5477</b>	<b>1.4400e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>143.5559</b>	<b>143.5559</b>	<b>4.9100e-003</b>		<b>143.6787</b>

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>3.5134</b>	<b>35.7830</b>	<b>22.0600</b>	<b>0.0388</b>		<b>1.7949</b>	<b>1.7949</b>		<b>1.6697</b>	<b>1.6697</b>		<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>



NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3873	22.3288	24.5506	0.0388		1.0804	1.0804		1.0569	1.0569	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>1.3873</b>	<b>22.3288</b>	<b>24.5506</b>	<b>0.0388</b>		<b>1.0804</b>	<b>1.0804</b>		<b>1.0569</b>	<b>1.0569</b>	<b>0.0000</b>	<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0236	0.0000	6.0236	3.3105	0.0000	3.3105			0.0000			0.0000
Off-Road	3.0711	32.4903	20.5118	0.0373		1.5833	1.5833		1.4611	1.4611		3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>3.0711</b>	<b>32.4903</b>	<b>20.5118</b>	<b>0.0373</b>	<b>6.0236</b>	<b>1.5833</b>	<b>7.6070</b>	<b>3.3105</b>	<b>1.4611</b>	<b>4.7716</b>		<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0584	2.0205	0.4362	5.3400e-003	0.1175	7.6200e-003	0.1252	0.0322	7.2900e-003	0.0395		582.1746	582.1746	0.0515		583.4626
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1212</b>	<b>2.0644</b>	<b>0.9312</b>	<b>6.7400e-003</b>	<b>0.2490</b>	<b>8.5600e-003</b>	<b>0.2575</b>	<b>0.0671</b>	<b>8.1500e-003</b>	<b>0.0752</b>		<b>721.4066</b>	<b>721.4066</b>	<b>0.0560</b>		<b>722.8057</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7106	0.0000	2.7106	1.4897	0.0000	1.4897			0.0000			0.0000
Off-Road	1.7634	24.1281	21.1198	0.0373		1.1540	1.1540		1.0972	1.0972	0.0000	3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>1.7634</b>	<b>24.1281</b>	<b>21.1198</b>	<b>0.0373</b>	<b>2.7106</b>	<b>1.1540</b>	<b>3.8646</b>	<b>1.4897</b>	<b>1.0972</b>	<b>2.5869</b>	<b>0.0000</b>	<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0584	2.0205	0.4362	5.3400e-003	0.1175	7.6200e-003	0.1252	0.0322	7.2900e-003	0.0395		582.1746	582.1746	0.0515		583.4626
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1212</b>	<b>2.0644</b>	<b>0.9312</b>	<b>6.7400e-003</b>	<b>0.2490</b>	<b>8.5600e-003</b>	<b>0.2575</b>	<b>0.0671</b>	<b>8.1500e-003</b>	<b>0.0752</b>		<b>721.4066</b>	<b>721.4066</b>	<b>0.0560</b>		<b>722.8057</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5707	22.1846	17.7738	0.0298		1.3181	1.3181		1.2589	1.2589		2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>2.5707</b>	<b>22.1846</b>	<b>17.7738</b>	<b>0.0298</b>		<b>1.3181</b>	<b>1.3181</b>		<b>1.2589</b>	<b>1.2589</b>		<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1841	4.9595	1.2804	0.0110	0.2708	0.0345	0.3053	0.0780	0.0330	0.1110		1,184.0665	1,184.0665	0.0914		1,186.3520
Worker	0.4005	0.2795	3.1560	8.9100e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		887.6036	887.6036	0.0283		888.3122
<b>Total</b>	<b>0.5846</b>	<b>5.2390</b>	<b>4.4364</b>	<b>0.0200</b>	<b>1.1087</b>	<b>0.0405</b>	<b>1.1492</b>	<b>0.3002</b>	<b>0.0385</b>	<b>0.3387</b>		<b>2,071.6702</b>	<b>2,071.6702</b>	<b>0.1198</b>		<b>2,074.6642</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4950	17.6580	18.2138	0.0298		1.1206	1.1206		1.0847	1.0847	0.0000	2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>1.4950</b>	<b>17.6580</b>	<b>18.2138</b>	<b>0.0298</b>		<b>1.1206</b>	<b>1.1206</b>		<b>1.0847</b>	<b>1.0847</b>	<b>0.0000</b>	<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1841	4.9595	1.2804	0.0110	0.2708	0.0345	0.3053	0.0780	0.0330	0.1110		1,184.0665	1,184.0665	0.0914		1,186.3520
Worker	0.4005	0.2795	3.1560	8.9100e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		887.6036	887.6036	0.0283		888.3122
<b>Total</b>	<b>0.5846</b>	<b>5.2390</b>	<b>4.4364</b>	<b>0.0200</b>	<b>1.1087</b>	<b>0.0405</b>	<b>1.1492</b>	<b>0.3002</b>	<b>0.0385</b>	<b>0.3387</b>		<b>2,071.6702</b>	<b>2,071.6702</b>	<b>0.1198</b>		<b>2,074.6642</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	20.2925	17.4563	0.0298		1.1480	1.1480		1.0966	1.0966		2,802.8335	2,802.8335	0.5283		2,816.0414
<b>Total</b>	<b>2.3142</b>	<b>20.2925</b>	<b>17.4563</b>	<b>0.0298</b>		<b>1.1480</b>	<b>1.1480</b>		<b>1.0966</b>	<b>1.0966</b>		<b>2,802.8335</b>	<b>2,802.8335</b>	<b>0.5283</b>		<b>2,816.0414</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1495	4.5103	1.1491	0.0110	0.2708	0.0221	0.2929	0.0780	0.0211	0.0991		1,176.160 3	1,176.160 3	0.0868		1,178.329 5
Worker	0.3743	0.2522	2.8913	8.6300e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		859.6020	859.6020	0.0257		860.2437
<b>Total</b>	<b>0.5238</b>	<b>4.7625</b>	<b>4.0403</b>	<b>0.0196</b>	<b>1.1087</b>	<b>0.0280</b>	<b>1.1366</b>	<b>0.3002</b>	<b>0.0265</b>	<b>0.3267</b>		<b>2,035.762 3</b>	<b>2,035.762 3</b>	<b>0.1124</b>		<b>2,038.573 1</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3848	16.7928	18.1373	0.0298		1.0319	1.0319		1.0008	1.0008	0.0000	2,802.833 4	2,802.833 4	0.5283		2,816.041 4
<b>Total</b>	<b>1.3848</b>	<b>16.7928</b>	<b>18.1373</b>	<b>0.0298</b>		<b>1.0319</b>	<b>1.0319</b>		<b>1.0008</b>	<b>1.0008</b>	<b>0.0000</b>	<b>2,802.833 4</b>	<b>2,802.833 4</b>	<b>0.5283</b>		<b>2,816.041 4</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1495	4.5103	1.1491	0.0110	0.2708	0.0221	0.2929	0.0780	0.0211	0.0991		1,176.1603	1,176.1603	0.0868		1,178.3295
Worker	0.3743	0.2522	2.8913	8.6300e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		859.6020	859.6020	0.0257		860.2437
<b>Total</b>	<b>0.5238</b>	<b>4.7625</b>	<b>4.0403</b>	<b>0.0196</b>	<b>1.1087</b>	<b>0.0280</b>	<b>1.1366</b>	<b>0.3002</b>	<b>0.0265</b>	<b>0.3267</b>		<b>2,035.7623</b>	<b>2,035.7623</b>	<b>0.1124</b>		<b>2,038.5731</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0839	18.4963	17.1770	0.0298		0.9918	0.9918		0.9471	0.9471		2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>2.0839</b>	<b>18.4963</b>	<b>17.1770</b>	<b>0.0298</b>		<b>0.9918</b>	<b>0.9918</b>		<b>0.9471</b>	<b>0.9471</b>		<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>



NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1210	4.0732	1.0380	0.0108	0.2708	8.5500e-003	0.2793	0.0780	8.1800e-003	0.0861		1,165.4078	1,165.4078	0.0833		1,167.4896
Worker	0.3528	0.2292	2.7054	8.3400e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		830.7297	830.7297	0.0237		831.3224
<b>Total</b>	<b>0.4738</b>	<b>4.3024</b>	<b>3.7434</b>	<b>0.0192</b>	<b>1.1087</b>	<b>0.0143</b>	<b>1.1230</b>	<b>0.3002</b>	<b>0.0135</b>	<b>0.3137</b>		<b>1,996.1375</b>	<b>1,996.1375</b>	<b>0.1070</b>		<b>1,998.8120</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2825	15.9688	18.0647	0.0298		0.9486	0.9486		0.9218	0.9218	0.0000	2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>1.2825</b>	<b>15.9688</b>	<b>18.0647</b>	<b>0.0298</b>		<b>0.9486</b>	<b>0.9486</b>		<b>0.9218</b>	<b>0.9218</b>	<b>0.0000</b>	<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1210	4.0732	1.0380	0.0108	0.2708	8.5500e-003	0.2793	0.0780	8.1800e-003	0.0861		1,165.4078	1,165.4078	0.0833		1,167.4896
Worker	0.3528	0.2292	2.7054	8.3400e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		830.7297	830.7297	0.0237		831.3224
<b>Total</b>	<b>0.4738</b>	<b>4.3024</b>	<b>3.7434</b>	<b>0.0192</b>	<b>1.1087</b>	<b>0.0143</b>	<b>1.1230</b>	<b>0.3002</b>	<b>0.0135</b>	<b>0.3137</b>		<b>1,996.1375</b>	<b>1,996.1375</b>	<b>0.1070</b>		<b>1,998.8120</b>

**3.5 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7021	6.8534	4.3933	9.6900e-003		0.3211	0.3211		0.3054	0.3054		930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.5842</b>	<b>6.8534</b>	<b>4.3933</b>	<b>9.6900e-003</b>		<b>0.3211</b>	<b>0.3211</b>		<b>0.3054</b>	<b>0.3054</b>		<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.5 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0449	0.5305	1.6300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		162.8882	162.8882	4.6500e-003		163.0044
<b>Total</b>	<b>0.0692</b>	<b>0.0449</b>	<b>0.5305</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>162.8882</b>	<b>162.8882</b>	<b>4.6500e-003</b>		<b>163.0044</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2201	4.5324	5.4950	9.6900e-003		0.2301	0.2301		0.2301	0.2301	0.0000	930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.1022</b>	<b>4.5324</b>	<b>5.4950</b>	<b>9.6900e-003</b>		<b>0.2301</b>	<b>0.2301</b>		<b>0.2301</b>	<b>0.2301</b>	<b>0.0000</b>	<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.5 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0449	0.5305	1.6300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		162.8882	162.8882	4.6500e-003		163.0044
<b>Total</b>	<b>0.0692</b>	<b>0.0449</b>	<b>0.5305</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>162.8882</b>	<b>162.8882</b>	<b>4.6500e-003</b>		<b>163.0044</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8933	8.8645	10.1188	0.0162		0.4522	0.4522		0.4174	0.4174		1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8933</b>	<b>8.8645</b>	<b>10.1188</b>	<b>0.0162</b>		<b>0.4522</b>	<b>0.4522</b>		<b>0.4174</b>	<b>0.4174</b>		<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0360	0.4244	1.3100e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		130.3105	130.3105	3.7200e-003		130.4035
<b>Total</b>	<b>0.0553</b>	<b>0.0360</b>	<b>0.4244</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>130.3105</b>	<b>130.3105</b>	<b>3.7200e-003</b>		<b>130.4035</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5640	7.5837	10.6296	0.0162		0.4024	0.4024		0.3871	0.3871	0.0000	1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5640</b>	<b>7.5837</b>	<b>10.6296</b>	<b>0.0162</b>		<b>0.4024</b>	<b>0.4024</b>		<b>0.3871</b>	<b>0.3871</b>	<b>0.0000</b>	<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0360	0.4244	1.3100e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		130.3105	130.3105	3.7200e-003		130.4035
<b>Total</b>	<b>0.0553</b>	<b>0.0360</b>	<b>0.4244</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>130.3105</b>	<b>130.3105</b>	<b>3.7200e-003</b>		<b>130.4035</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCWRP Expansion - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831
Unmitigated	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	24.10	83.84	24.10	138,996	138,996
Total	24.10	83.84	24.10	138,996	138,996

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCWRP Expansion - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	



NCWRP Expansion - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCWRP Expansion - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Unmitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCWRP Expansion - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCWRP Expansion - San Diego County APCD Air District, Winter

**NCWRP Expansion**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	241.03	1000sqft	5.53	241,034.00	49

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCWRP Expansion - San Diego County APCD Air District, Winter

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Grading - See Section 7.1.2 for Construction Details.

Demolition - No demolition of structures.

Trips and VMT - See Section 7.1.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - Based on the traffic information study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment must be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.



NCWRP Expansion - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	230.00	428.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	5/14/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	2/26/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	9/24/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	9/25/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	2/27/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	75.00	0.00
tblGrading	MaterialExported	0.00	1,644.00
tblLandUse	Population	0.00	49.00



NCWRP Expansion - San Diego County APCD Air District, Winter

tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	298.88	8.83

## NCWRP Expansion - San Diego County APCD Air District, Winter

tblTripsAndVMT	HaulingTripNumber	206.00	1,009.00
tblTripsAndVMT	WorkerTripNumber	101.00	102.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	28.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.35
tblVehicleTrips	SU_TR	0.68	0.10
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	55,738,187.50	312,000.00

## 2.0 Emissions Summary

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NCWRP Expansion - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	3.7959	38.3776	22.8236	0.0402	0.1314	1.9395	2.0709	0.0349	1.8057	1.8406	0.0000	4,006.5389	4,006.5389	1.0714	0.0000	4,033.3235
2019	3.5844	35.8322	22.5279	0.0490	6.2726	1.7958	7.8647	3.3775	1.6705	4.8470	0.0000	4,819.0407	4,819.0407	1.1704	0.0000	4,835.6724
2020	2.8947	25.0823	21.4574	0.0486	1.1087	1.1764	2.2851	0.3002	1.1235	1.4237	0.0000	4,755.6369	4,755.6369	0.6448	0.0000	4,771.7573
2021	22.6187	22.8160	20.8759	0.0482	1.1087	1.0065	2.1151	0.3002	0.9610	1.2612	0.0000	4,718.0308	4,718.0308	0.7042	0.0000	4,733.7548
<b>Maximum</b>	<b>22.6187</b>	<b>38.3776</b>	<b>22.8236</b>	<b>0.0490</b>	<b>6.2726</b>	<b>1.9395</b>	<b>7.8647</b>	<b>3.3775</b>	<b>1.8057</b>	<b>4.8470</b>	<b>0.0000</b>	<b>4,819.0407</b>	<b>4,819.0407</b>	<b>1.1704</b>	<b>0.0000</b>	<b>4,835.6724</b>



NCWRP Expansion - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465
<b>Total</b>	<b>5.9606</b>	<b>0.8905</b>	<b>2.5593</b>	<b>8.6500e-003</b>	<b>0.7572</b>	<b>8.8000e-003</b>	<b>0.7660</b>	<b>0.2024</b>	<b>8.2600e-003</b>	<b>0.2107</b>		<b>877.7462</b>	<b>877.7462</b>	<b>0.0463</b>	<b>0.0000</b>	<b>878.9028</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465
<b>Total</b>	<b>5.9606</b>	<b>0.8905</b>	<b>2.5593</b>	<b>8.6500e-003</b>	<b>0.7572</b>	<b>8.8000e-003</b>	<b>0.7660</b>	<b>0.2024</b>	<b>8.2600e-003</b>	<b>0.2107</b>		<b>877.7462</b>	<b>877.7462</b>	<b>0.0463</b>	<b>0.0000</b>	<b>878.9028</b>

## NCWRP Expansion - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	2/26/2019	5	107	
2	Grading	Grading	2/27/2019	9/24/2019	5	150	
3	Building Construction	Building Construction	9/25/2019	5/14/2021	5	428	
4	Architectural Coating	Architectural Coating	7/9/2021	12/6/2021	5	107	
5	Paving	Paving	7/9/2021	12/6/2021	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 361,551; Non-Residential Outdoor: 120,517; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## NCWRP Expansion - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Architectural Coating	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
	Concrete/Industrial Saws	1	8.00	81	0.73
	Dumpers/Tenders	1	8.00	16	0.38
Paving	Paving Equipment	2	8.00	132	0.36
	Excavators	1	8.00	158	0.38
	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

NCWRP Expansion - San Diego County APCD Air District, Winter

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	102.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	16.00	0.00	1,009.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>3.7190</b>	<b>38.3225</b>	<b>22.3040</b>	<b>0.0388</b>		<b>1.9386</b>	<b>1.9386</b>		<b>1.8048</b>	<b>1.8048</b>		<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>



NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0769	0.0551	0.5196	1.3500e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		134.7724	134.7724	4.6700e-003		134.8891
<b>Total</b>	<b>0.0769</b>	<b>0.0551</b>	<b>0.5196</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>134.7724</b>	<b>134.7724</b>	<b>4.6700e-003</b>		<b>134.8891</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4031	22.5716	24.5968	0.0388		1.0913	1.0913		1.0669	1.0669	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>1.4031</b>	<b>22.5716</b>	<b>24.5968</b>	<b>0.0388</b>		<b>1.0913</b>	<b>1.0913</b>		<b>1.0669</b>	<b>1.0669</b>	<b>0.0000</b>	<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0769	0.0551	0.5196	1.3500e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		134.7724	134.7724	4.6700e-003		134.8891
<b>Total</b>	<b>0.0769</b>	<b>0.0551</b>	<b>0.5196</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>134.7724</b>	<b>134.7724</b>	<b>4.6700e-003</b>		<b>134.8891</b>

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>3.5134</b>	<b>35.7830</b>	<b>22.0600</b>	<b>0.0388</b>		<b>1.7949</b>	<b>1.7949</b>		<b>1.6697</b>	<b>1.6697</b>		<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3873	22.3288	24.5506	0.0388		1.0804	1.0804		1.0569	1.0569	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>1.3873</b>	<b>22.3288</b>	<b>24.5506</b>	<b>0.0388</b>		<b>1.0804</b>	<b>1.0804</b>		<b>1.0569</b>	<b>1.0569</b>	<b>0.0000</b>	<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0236	0.0000	6.0236	3.3105	0.0000	3.3105			0.0000			0.0000
Off-Road	3.0711	32.4903	20.5118	0.0373		1.5833	1.5833		1.4611	1.4611		3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>3.0711</b>	<b>32.4903</b>	<b>20.5118</b>	<b>0.0373</b>	<b>6.0236</b>	<b>1.5833</b>	<b>7.6070</b>	<b>3.3105</b>	<b>1.4611</b>	<b>4.7716</b>		<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0600	2.0412	0.4674	5.2500e-003	0.1175	7.8000e-003	0.1253	0.0322	7.4700e-003	0.0397		572.3780	572.3780	0.0534		573.7126
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1311</b>	<b>2.0905</b>	<b>0.9352</b>	<b>6.5600e-003</b>	<b>0.2490</b>	<b>8.7400e-003</b>	<b>0.2577</b>	<b>0.0671</b>	<b>8.3300e-003</b>	<b>0.0754</b>		<b>703.0842</b>	<b>703.0842</b>	<b>0.0576</b>		<b>704.5243</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7106	0.0000	2.7106	1.4897	0.0000	1.4897			0.0000			0.0000
Off-Road	1.7634	24.1281	21.1198	0.0373		1.1540	1.1540		1.0972	1.0972	0.0000	3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>1.7634</b>	<b>24.1281</b>	<b>21.1198</b>	<b>0.0373</b>	<b>2.7106</b>	<b>1.1540</b>	<b>3.8646</b>	<b>1.4897</b>	<b>1.0972</b>	<b>2.5869</b>	<b>0.0000</b>	<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0600	2.0412	0.4674	5.2500e-003	0.1175	7.8000e-003	0.1253	0.0322	7.4700e-003	0.0397		572.3780	572.3780	0.0534		573.7126
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1311</b>	<b>2.0905</b>	<b>0.9352</b>	<b>6.5600e-003</b>	<b>0.2490</b>	<b>8.7400e-003</b>	<b>0.2577</b>	<b>0.0671</b>	<b>8.3300e-003</b>	<b>0.0754</b>		<b>703.0842</b>	<b>703.0842</b>	<b>0.0576</b>		<b>704.5243</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5707	22.1846	17.7738	0.0298		1.3181	1.3181		1.2589	1.2589		2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>2.5707</b>	<b>22.1846</b>	<b>17.7738</b>	<b>0.0298</b>		<b>1.3181</b>	<b>1.3181</b>		<b>1.2589</b>	<b>1.2589</b>		<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1920	4.9635	1.4196	0.0108	0.2708	0.0351	0.3059	0.0780	0.0336	0.1115		1,154.0010	1,154.0010	0.0973		1,156.4323
Worker	0.4530	0.3139	2.9824	8.3700e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		833.2520	833.2520	0.0269		833.9242
<b>Total</b>	<b>0.6450</b>	<b>5.2774</b>	<b>4.4020</b>	<b>0.0191</b>	<b>1.1087</b>	<b>0.0411</b>	<b>1.1498</b>	<b>0.3002</b>	<b>0.0391</b>	<b>0.3393</b>		<b>1,987.2530</b>	<b>1,987.2530</b>	<b>0.1241</b>		<b>1,990.3564</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4950	17.6580	18.2138	0.0298		1.1206	1.1206		1.0847	1.0847	0.0000	2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>1.4950</b>	<b>17.6580</b>	<b>18.2138</b>	<b>0.0298</b>		<b>1.1206</b>	<b>1.1206</b>		<b>1.0847</b>	<b>1.0847</b>	<b>0.0000</b>	<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1920	4.9635	1.4196	0.0108	0.2708	0.0351	0.3059	0.0780	0.0336	0.1115		1,154.0010	1,154.0010	0.0973		1,156.4323
Worker	0.4530	0.3139	2.9824	8.3700e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		833.2520	833.2520	0.0269		833.9242
<b>Total</b>	<b>0.6450</b>	<b>5.2774</b>	<b>4.4020</b>	<b>0.0191</b>	<b>1.1087</b>	<b>0.0411</b>	<b>1.1498</b>	<b>0.3002</b>	<b>0.0391</b>	<b>0.3393</b>		<b>1,987.2530</b>	<b>1,987.2530</b>	<b>0.1241</b>		<b>1,990.3564</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	20.2925	17.4563	0.0298		1.1480	1.1480		1.0966	1.0966		2,802.8335	2,802.8335	0.5283		2,816.0414
<b>Total</b>	<b>2.3142</b>	<b>20.2925</b>	<b>17.4563</b>	<b>0.0298</b>		<b>1.1480</b>	<b>1.1480</b>		<b>1.0966</b>	<b>1.0966</b>		<b>2,802.8335</b>	<b>2,802.8335</b>	<b>0.5283</b>		<b>2,816.0414</b>



NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1566	4.5067	1.2752	0.0107	0.2708	0.0225	0.2933	0.0780	0.0215	0.0995		1,145.8489	1,145.8489	0.0922		1,148.1539
Worker	0.4239	0.2832	2.7259	8.1000e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		806.9546	806.9546	0.0243		807.5620
<b>Total</b>	<b>0.5805</b>	<b>4.7898</b>	<b>4.0011</b>	<b>0.0188</b>	<b>1.1087</b>	<b>0.0284</b>	<b>1.1371</b>	<b>0.3002</b>	<b>0.0269</b>	<b>0.3271</b>		<b>1,952.8035</b>	<b>1,952.8035</b>	<b>0.1165</b>		<b>1,955.7159</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3848	16.7928	18.1373	0.0298		1.0319	1.0319		1.0008	1.0008	0.0000	2,802.8334	2,802.8334	0.5283		2,816.0414
<b>Total</b>	<b>1.3848</b>	<b>16.7928</b>	<b>18.1373</b>	<b>0.0298</b>		<b>1.0319</b>	<b>1.0319</b>		<b>1.0008</b>	<b>1.0008</b>	<b>0.0000</b>	<b>2,802.8334</b>	<b>2,802.8334</b>	<b>0.5283</b>		<b>2,816.0414</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1566	4.5067	1.2752	0.0107	0.2708	0.0225	0.2933	0.0780	0.0215	0.0995		1,145.8489	1,145.8489	0.0922		1,148.1539
Worker	0.4239	0.2832	2.7259	8.1000e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		806.9546	806.9546	0.0243		807.5620
<b>Total</b>	<b>0.5805</b>	<b>4.7898</b>	<b>4.0011</b>	<b>0.0188</b>	<b>1.1087</b>	<b>0.0284</b>	<b>1.1371</b>	<b>0.3002</b>	<b>0.0269</b>	<b>0.3271</b>		<b>1,952.8035</b>	<b>1,952.8035</b>	<b>0.1165</b>		<b>1,955.7159</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0839	18.4963	17.1770	0.0298		0.9918	0.9918		0.9471	0.9471		2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>2.0839</b>	<b>18.4963</b>	<b>17.1770</b>	<b>0.0298</b>		<b>0.9918</b>	<b>0.9918</b>		<b>0.9471</b>	<b>0.9471</b>		<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1275	4.0623	1.1558	0.0106	0.2708	8.9000e-003	0.2797	0.0780	8.5100e-003	0.0865		1,135.2772	1,135.2772	0.0884		1,137.4882
Worker	0.4001	0.2573	2.5431	7.8300e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		779.8385	779.8385	0.0224		780.3986
<b>Total</b>	<b>0.5276</b>	<b>4.3196</b>	<b>3.6989</b>	<b>0.0184</b>	<b>1.1087</b>	<b>0.0147</b>	<b>1.1234</b>	<b>0.3002</b>	<b>0.0138</b>	<b>0.3140</b>		<b>1,915.1157</b>	<b>1,915.1157</b>	<b>0.1108</b>		<b>1,917.8869</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2825	15.9688	18.0647	0.0298		0.9486	0.9486		0.9218	0.9218	0.0000	2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>1.2825</b>	<b>15.9688</b>	<b>18.0647</b>	<b>0.0298</b>		<b>0.9486</b>	<b>0.9486</b>		<b>0.9218</b>	<b>0.9218</b>	<b>0.0000</b>	<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1275	4.0623	1.1558	0.0106	0.2708	8.9000e-003	0.2797	0.0780	8.5100e-003	0.0865		1,135.2772	1,135.2772	0.0884		1,137.4882
Worker	0.4001	0.2573	2.5431	7.8300e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		779.8385	779.8385	0.0224		780.3986
<b>Total</b>	<b>0.5276</b>	<b>4.3196</b>	<b>3.6989</b>	<b>0.0184</b>	<b>1.1087</b>	<b>0.0147</b>	<b>1.1234</b>	<b>0.3002</b>	<b>0.0138</b>	<b>0.3140</b>		<b>1,915.1157</b>	<b>1,915.1157</b>	<b>0.1108</b>		<b>1,917.8869</b>

**3.5 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7021	6.8534	4.3933	9.6900e-003		0.3211	0.3211		0.3054	0.3054		930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.5842</b>	<b>6.8534</b>	<b>4.3933</b>	<b>9.6900e-003</b>		<b>0.3211</b>	<b>0.3211</b>		<b>0.3054</b>	<b>0.3054</b>		<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.5 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0505	0.4987	1.5300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		152.9095	152.9095	4.3900e-003		153.0193
<b>Total</b>	<b>0.0785</b>	<b>0.0505</b>	<b>0.4987</b>	<b>1.5300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>152.9095</b>	<b>152.9095</b>	<b>4.3900e-003</b>		<b>153.0193</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2201	4.5324	5.4950	9.6900e-003		0.2301	0.2301		0.2301	0.2301	0.0000	930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.1022</b>	<b>4.5324</b>	<b>5.4950</b>	<b>9.6900e-003</b>		<b>0.2301</b>	<b>0.2301</b>		<b>0.2301</b>	<b>0.2301</b>	<b>0.0000</b>	<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

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**3.5 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0505	0.4987	1.5300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		152.9095	152.9095	4.3900e-003		153.0193
<b>Total</b>	<b>0.0785</b>	<b>0.0505</b>	<b>0.4987</b>	<b>1.5300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>152.9095</b>	<b>152.9095</b>	<b>4.3900e-003</b>		<b>153.0193</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8933	8.8645	10.1188	0.0162		0.4522	0.4522		0.4174	0.4174		1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8933</b>	<b>8.8645</b>	<b>10.1188</b>	<b>0.0162</b>		<b>0.4522</b>	<b>0.4522</b>		<b>0.4174</b>	<b>0.4174</b>		<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0404	0.3989	1.2300e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		122.3276	122.3276	3.5100e-003		122.4155
<b>Total</b>	<b>0.0628</b>	<b>0.0404</b>	<b>0.3989</b>	<b>1.2300e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>122.3276</b>	<b>122.3276</b>	<b>3.5100e-003</b>		<b>122.4155</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5640	7.5837	10.6296	0.0162		0.4024	0.4024		0.3871	0.3871	0.0000	1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5640</b>	<b>7.5837</b>	<b>10.6296</b>	<b>0.0162</b>		<b>0.4024</b>	<b>0.4024</b>		<b>0.3871</b>	<b>0.3871</b>	<b>0.0000</b>	<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0404	0.3989	1.2300e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		122.3276	122.3276	3.5100e-003		122.4155
<b>Total</b>	<b>0.0628</b>	<b>0.0404</b>	<b>0.3989</b>	<b>1.2300e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>122.3276</b>	<b>122.3276</b>	<b>3.5100e-003</b>		<b>122.4155</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



NCWRP Expansion - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465
Unmitigated	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	24.10	83.84	24.10	138,996	138,996
Total	24.10	83.84	24.10	138,996	138,996

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCWRP Expansion - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCWRP Expansion - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Unmitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

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Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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North City Pump Station - San Diego County APCD Air District, Annual

**North City Pump Station**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.50	1000sqft	0.13	5,500.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.





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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	15.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	6.82	0.29
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00

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tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	26.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,271,875.00	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-21-2019	8-20-2019	1.0694	0.7455
2	8-21-2019	11-20-2019	0.6779	0.4609
3	11-21-2019	2-20-2020	0.6472	0.4605
4	2-21-2020	5-20-2020	0.6084	0.4496
5	5-21-2020	8-20-2020	0.3769	0.2823
		Highest	1.0694	0.7455

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0240	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0240</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0224	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0224</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0443</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.66	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.05	0.00	0.00	0.02

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/21/2019	6/10/2019	5	15	
2	Trenching	Trenching	6/11/2019	8/19/2019	5	50	
3	Building Construction	Building Construction	8/20/2019	7/6/2020	5	230	
4	Paving	Paving	7/7/2020	7/13/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**



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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.2363	0.1233	2.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	19.1670	19.1670	6.0600e-003	0.0000	19.3186
<b>Total</b>	<b>0.0225</b>	<b>0.2363</b>	<b>0.1233</b>	<b>2.1000e-004</b>	<b>0.0903</b>	<b>0.0121</b>	<b>0.1025</b>	<b>0.0497</b>	<b>0.0112</b>	<b>0.0608</b>	<b>0.0000</b>	<b>19.1670</b>	<b>19.1670</b>	<b>6.0600e-003</b>	<b>0.0000</b>	<b>19.3186</b>

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**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2300e-003	0.1051	0.1325	2.1000e-004		5.0100e-003	5.0100e-003		5.0100e-003	5.0100e-003	0.0000	19.1670	19.1670	6.0600e-003	0.0000	19.3186
<b>Total</b>	<b>5.2300e-003</b>	<b>0.1051</b>	<b>0.1325</b>	<b>2.1000e-004</b>	<b>0.0407</b>	<b>5.0100e-003</b>	<b>0.0457</b>	<b>0.0223</b>	<b>5.0100e-003</b>	<b>0.0274</b>	<b>0.0000</b>	<b>19.1670</b>	<b>19.1670</b>	<b>6.0600e-003</b>	<b>0.0000</b>	<b>19.3186</b>

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**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0846	0.7137	0.6565	1.1600e-003		0.0389	0.0389		0.0366	0.0366	0.0000	101.4245	101.4245	0.0274	0.0000	102.1090
<b>Total</b>	<b>0.0846</b>	<b>0.7137</b>	<b>0.6565</b>	<b>1.1600e-003</b>		<b>0.0389</b>	<b>0.0389</b>		<b>0.0366</b>	<b>0.0366</b>	<b>0.0000</b>	<b>101.4245</b>	<b>101.4245</b>	<b>0.0274</b>	<b>0.0000</b>	<b>102.1090</b>

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**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-003	1.9700e-003	0.0190	5.0000e-005	5.2100e-003	4.0000e-005	5.2500e-003	1.3900e-003	4.0000e-005	1.4200e-003	0.0000	4.8652	4.8652	1.6000e-004	0.0000	4.8691
<b>Total</b>	<b>2.5600e-003</b>	<b>1.9700e-003</b>	<b>0.0190</b>	<b>5.0000e-005</b>	<b>5.2100e-003</b>	<b>4.0000e-005</b>	<b>5.2500e-003</b>	<b>1.3900e-003</b>	<b>4.0000e-005</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>4.8652</b>	<b>4.8652</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>4.8691</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0299	0.5952	0.7586	1.1600e-003		0.0332	0.0332		0.0332	0.0332	0.0000	101.4244	101.4244	0.0274	0.0000	102.1089
<b>Total</b>	<b>0.0299</b>	<b>0.5952</b>	<b>0.7586</b>	<b>1.1600e-003</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>101.4244</b>	<b>101.4244</b>	<b>0.0274</b>	<b>0.0000</b>	<b>102.1089</b>

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**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-003	1.9700e-003	0.0190	5.0000e-005	5.2100e-003	4.0000e-005	5.2500e-003	1.3900e-003	4.0000e-005	1.4200e-003	0.0000	4.8652	4.8652	1.6000e-004	0.0000	4.8691
<b>Total</b>	<b>2.5600e-003</b>	<b>1.9700e-003</b>	<b>0.0190</b>	<b>5.0000e-005</b>	<b>5.2100e-003</b>	<b>4.0000e-005</b>	<b>5.2500e-003</b>	<b>1.3900e-003</b>	<b>4.0000e-005</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>4.8652</b>	<b>4.8652</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>4.8691</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1025	0.8665	0.7052	1.1000e-003		0.0486	0.0486		0.0455	0.0455	0.0000	95.2979	95.2979	0.0275	0.0000	95.9843
<b>Total</b>	<b>0.1025</b>	<b>0.8665</b>	<b>0.7052</b>	<b>1.1000e-003</b>		<b>0.0486</b>	<b>0.0486</b>		<b>0.0455</b>	<b>0.0455</b>	<b>0.0000</b>	<b>95.2979</b>	<b>95.2979</b>	<b>0.0275</b>	<b>0.0000</b>	<b>95.9843</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0121	3.2400e-003	3.0000e-005	6.4000e-004	8.0000e-005	7.2000e-004	1.8000e-004	8.0000e-005	2.6000e-004	0.0000	2.5505	2.5505	2.0000e-004	0.0000	2.5556
Worker	4.9200e-003	3.7800e-003	0.0365	1.0000e-004	0.0100	7.0000e-005	0.0101	2.6600e-003	7.0000e-005	2.7300e-003	0.0000	9.3412	9.3412	3.0000e-004	0.0000	9.3488
<b>Total</b>	<b>5.3700e-003</b>	<b>0.0158</b>	<b>0.0398</b>	<b>1.3000e-004</b>	<b>0.0107</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>2.8400e-003</b>	<b>1.5000e-004</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>11.8918</b>	<b>11.8918</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>11.9044</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.6208	0.7327	1.1000e-003		0.0377	0.0377		0.0377	0.0377	0.0000	95.2978	95.2978	0.0275	0.0000	95.9842
<b>Total</b>	<b>0.0313</b>	<b>0.6208</b>	<b>0.7327</b>	<b>1.1000e-003</b>		<b>0.0377</b>	<b>0.0377</b>		<b>0.0377</b>	<b>0.0377</b>	<b>0.0000</b>	<b>95.2978</b>	<b>95.2978</b>	<b>0.0275</b>	<b>0.0000</b>	<b>95.9842</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0121	3.2400e-003	3.0000e-005	6.4000e-004	8.0000e-005	7.2000e-004	1.8000e-004	8.0000e-005	2.6000e-004	0.0000	2.5505	2.5505	2.0000e-004	0.0000	2.5556
Worker	4.9200e-003	3.7800e-003	0.0365	1.0000e-004	0.0100	7.0000e-005	0.0101	2.6600e-003	7.0000e-005	2.7300e-003	0.0000	9.3412	9.3412	3.0000e-004	0.0000	9.3488
<b>Total</b>	<b>5.3700e-003</b>	<b>0.0158</b>	<b>0.0398</b>	<b>1.3000e-004</b>	<b>0.0107</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>2.8400e-003</b>	<b>1.5000e-004</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>11.8918</b>	<b>11.8918</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>11.9044</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1288	1.1124	0.9629	1.5400e-003		0.0592	0.0592		0.0554	0.0554	0.0000	130.6728	130.6728	0.0378	0.0000	131.6186
<b>Total</b>	<b>0.1288</b>	<b>1.1124</b>	<b>0.9629</b>	<b>1.5400e-003</b>		<b>0.0592</b>	<b>0.0592</b>		<b>0.0554</b>	<b>0.0554</b>	<b>0.0000</b>	<b>130.6728</b>	<b>130.6728</b>	<b>0.0378</b>	<b>0.0000</b>	<b>131.6186</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0153	4.0600e-003	4.0000e-005	8.9000e-004	7.0000e-005	9.6000e-004	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	3.5357	3.5357	2.7000e-004	0.0000	3.5425
Worker	6.4200e-003	4.7500e-003	0.0466	1.4000e-004	0.0140	1.0000e-004	0.0141	3.7100e-003	9.0000e-005	3.8000e-003	0.0000	12.6273	12.6273	3.8000e-004	0.0000	12.6368
<b>Total</b>	<b>6.9300e-003</b>	<b>0.0200</b>	<b>0.0507</b>	<b>1.8000e-004</b>	<b>0.0149</b>	<b>1.7000e-004</b>	<b>0.0150</b>	<b>3.9700e-003</b>	<b>1.6000e-004</b>	<b>4.1300e-003</b>	<b>0.0000</b>	<b>16.1631</b>	<b>16.1631</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>16.1793</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0437	0.8665	1.0227	1.5400e-003		0.0526	0.0526		0.0526	0.0526	0.0000	130.6726	130.6726	0.0378	0.0000	131.6184
<b>Total</b>	<b>0.0437</b>	<b>0.8665</b>	<b>1.0227</b>	<b>1.5400e-003</b>		<b>0.0526</b>	<b>0.0526</b>		<b>0.0526</b>	<b>0.0526</b>	<b>0.0000</b>	<b>130.6726</b>	<b>130.6726</b>	<b>0.0378</b>	<b>0.0000</b>	<b>131.6184</b>



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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0153	4.0600e-003	4.0000e-005	8.9000e-004	7.0000e-005	9.6000e-004	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	3.5357	3.5357	2.7000e-004	0.0000	3.5425
Worker	6.4200e-003	4.7500e-003	0.0466	1.4000e-004	0.0140	1.0000e-004	0.0141	3.7100e-003	9.0000e-005	3.8000e-003	0.0000	12.6273	12.6273	3.8000e-004	0.0000	12.6368
<b>Total</b>	<b>6.9300e-003</b>	<b>0.0200</b>	<b>0.0507</b>	<b>1.8000e-004</b>	<b>0.0149</b>	<b>1.7000e-004</b>	<b>0.0150</b>	<b>3.9700e-003</b>	<b>1.6000e-004</b>	<b>4.1300e-003</b>	<b>0.0000</b>	<b>16.1631</b>	<b>16.1631</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>16.1793</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7900e-003	0.0533	0.0485	9.0000e-005		2.8500e-003	2.8500e-003		2.6700e-003	2.6700e-003	0.0000	7.9562	7.9562	2.2000e-003	0.0000	8.0112
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.7900e-003</b>	<b>0.0533</b>	<b>0.0485</b>	<b>9.0000e-005</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>		<b>2.6700e-003</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>7.9562</b>	<b>7.9562</b>	<b>2.2000e-003</b>	<b>0.0000</b>	<b>8.0112</b>

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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3262	0.3262	1.0000e-005	0.0000	0.3264
<b>Total</b>	<b>1.7000e-004</b>	<b>1.2000e-004</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3262</b>	<b>0.3262</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3264</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1500e-003	0.0452	0.0589	9.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	7.9562	7.9562	2.2000e-003	0.0000	8.0111
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.1500e-003</b>	<b>0.0452</b>	<b>0.0589</b>	<b>9.0000e-005</b>		<b>2.5500e-003</b>	<b>2.5500e-003</b>		<b>2.5500e-003</b>	<b>2.5500e-003</b>	<b>0.0000</b>	<b>7.9562</b>	<b>7.9562</b>	<b>2.2000e-003</b>	<b>0.0000</b>	<b>8.0111</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3262	0.3262	1.0000e-005	0.0000	0.3264
<b>Total</b>	<b>1.7000e-004</b>	<b>1.2000e-004</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3262</b>	<b>0.3262</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3264</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0224	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Unmitigated	0.0240	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
<b>Total</b>	<b>0.0240</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>



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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0199					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
<b>Total</b>	<b>0.0224</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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North City Pump Station - San Diego County APCD Air District, Summer

**North City Pump Station**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.50	1000sqft	0.13	5,500.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

North City Pump Station - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.





## North City Pump Station - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	15.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	6.82	0.29
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00

## North City Pump Station - San Diego County APCD Air District, Summer

tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	26.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,271,875.00	10,400.00

## 2.0 Emissions Summary

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North City Pump Station - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2800e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.8000e-004</b>

## North City Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.70	100.00	41.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.83	45.83	0.00	0.00	46.88

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/21/2019	6/10/2019	5	15	
2	Trenching	Trenching	6/11/2019	8/19/2019	5	50	
3	Building Construction	Building Construction	8/20/2019	7/6/2020	5	230	
4	Paving	Paving	7/7/2020	7/13/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## North City Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

North City Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.9955	31.5054	16.4368	0.0284		1.6189	1.6189		1.4894	1.4894		2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>2.9955</b>	<b>31.5054</b>	<b>16.4368</b>	<b>0.0284</b>	<b>12.0442</b>	<b>1.6189</b>	<b>13.6631</b>	<b>6.6205</b>	<b>1.4894</b>	<b>8.1098</b>		<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4199	0.0000	5.4199	2.9792	0.0000	2.9792			0.0000			0.0000
Off-Road	0.6972	14.0109	17.6633	0.0284		0.6684	0.6684		0.6684	0.6684	0.0000	2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>0.6972</b>	<b>14.0109</b>	<b>17.6633</b>	<b>0.0284</b>	<b>5.4199</b>	<b>0.6684</b>	<b>6.0882</b>	<b>2.9792</b>	<b>0.6684</b>	<b>3.6476</b>	<b>0.0000</b>	<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>



North City Pump Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>		<b>1.5556</b>	<b>1.5556</b>		<b>1.4655</b>	<b>1.4655</b>		<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1021</b>	<b>0.0713</b>	<b>0.8045</b>	<b>2.2700e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>226.2519</b>	<b>226.2519</b>	<b>7.2200e-003</b>		<b>226.4325</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>		<b>1.3279</b>	<b>1.3279</b>		<b>1.3279</b>	<b>1.3279</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1021</b>	<b>0.0713</b>	<b>0.8045</b>	<b>2.2700e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>226.2519</b>	<b>226.2519</b>	<b>7.2200e-003</b>		<b>226.4325</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1351	18.0521	14.6913	0.0230		1.0121	1.0121		0.9470	0.9470		2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>2.1351</b>	<b>18.0521</b>	<b>14.6913</b>	<b>0.0230</b>		<b>1.0121</b>	<b>1.0121</b>		<b>0.9470</b>	<b>0.9470</b>		<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1113</b>	<b>0.3192</b>	<b>0.8685</b>	<b>2.8200e-003</b>	<b>0.2271</b>	<b>3.2500e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0500e-003</b>	<b>0.0636</b>		<b>285.4552</b>	<b>285.4552</b>	<b>0.0118</b>		<b>285.7501</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1113</b>	<b>0.3192</b>	<b>0.8685</b>	<b>2.8200e-003</b>	<b>0.2271</b>	<b>3.2500e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0500e-003</b>	<b>0.0636</b>		<b>285.4552</b>	<b>285.4552</b>	<b>0.0118</b>		<b>285.7501</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9224	16.6027	14.3715	0.0230		0.8838	0.8838		0.8270	0.8270		2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>1.9224</b>	<b>16.6027</b>	<b>14.3715</b>	<b>0.0230</b>		<b>0.8838</b>	<b>0.8838</b>		<b>0.8270</b>	<b>0.8270</b>		<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0954	0.0643	0.7370	2.2000e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		219.1142	219.1142	6.5400e-003		219.2778
<b>Total</b>	<b>0.1029</b>	<b>0.2898</b>	<b>0.7944</b>	<b>2.7500e-003</b>	<b>0.2271</b>	<b>2.6000e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4400e-003</b>	<b>0.0630</b>		<b>277.9223</b>	<b>277.9223</b>	<b>0.0109</b>		<b>278.1943</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0954	0.0643	0.7370	2.2000e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		219.1142	219.1142	6.5400e-003		219.2778
<b>Total</b>	<b>0.1029</b>	<b>0.2898</b>	<b>0.7944</b>	<b>2.7500e-003</b>	<b>0.2271</b>	<b>2.6000e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4400e-003</b>	<b>0.0630</b>		<b>277.9223</b>	<b>277.9223</b>	<b>0.0109</b>		<b>278.1943</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	21.3048	19.4068	0.0364		1.1395	1.1395		1.0676	1.0676		3,508.0941	3,508.0941	0.9688		3,532.3136
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.3142</b>	<b>21.3048</b>	<b>19.4068</b>	<b>0.0364</b>		<b>1.1395</b>	<b>1.1395</b>		<b>1.0676</b>	<b>1.0676</b>		<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3136</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0941	3,508.0941	0.9688		3,532.3135
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3135</b>



North City Pump Station - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

North City Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

North City Pump Station - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

North City Pump Station - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

North City Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Unmitigated	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1177					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>		<b>1.2800e-003</b>

North City Pump Station - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>		<b>6.8000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

North City Pump Station - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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North City Pump Station - San Diego County APCD Air District, Winter

**North City Pump Station**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.50	1000sqft	0.13	5,500.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.



North City Pump Station - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



## North City Pump Station - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	15.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	6.82	0.29
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00

## North City Pump Station - San Diego County APCD Air District, Winter

tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	26.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,271,875.00	10,400.00

## 2.0 Emissions Summary

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North City Pump Station - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2800e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.8000e-004</b>

## North City Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.70	100.00	41.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.83	45.83	0.00	0.00	46.88

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/21/2019	6/10/2019	5	15	
2	Trenching	Trenching	6/11/2019	8/19/2019	5	50	
3	Building Construction	Building Construction	8/20/2019	7/6/2020	5	230	
4	Paving	Paving	7/7/2020	7/13/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## North City Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**



North City Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.9955	31.5054	16.4368	0.0284		1.6189	1.6189		1.4894	1.4894		2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>2.9955</b>	<b>31.5054</b>	<b>16.4368</b>	<b>0.0284</b>	<b>12.0442</b>	<b>1.6189</b>	<b>13.6631</b>	<b>6.6205</b>	<b>1.4894</b>	<b>8.1098</b>		<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4199	0.0000	5.4199	2.9792	0.0000	2.9792			0.0000			0.0000
Off-Road	0.6972	14.0109	17.6633	0.0284		0.6684	0.6684		0.6684	0.6684	0.0000	2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>0.6972</b>	<b>14.0109</b>	<b>17.6633</b>	<b>0.0284</b>	<b>5.4199</b>	<b>0.6684</b>	<b>6.0882</b>	<b>2.9792</b>	<b>0.6684</b>	<b>3.6476</b>	<b>0.0000</b>	<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>		<b>1.5556</b>	<b>1.5556</b>		<b>1.4655</b>	<b>1.4655</b>		<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1155</b>	<b>0.0800</b>	<b>0.7602</b>	<b>2.1300e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>212.3976</b>	<b>212.3976</b>	<b>6.8500e-003</b>		<b>212.5689</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>		<b>1.3279</b>	<b>1.3279</b>		<b>1.3279</b>	<b>1.3279</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1155</b>	<b>0.0800</b>	<b>0.7602</b>	<b>2.1300e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>212.3976</b>	<b>212.3976</b>	<b>6.8500e-003</b>		<b>212.5689</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1351	18.0521	14.6913	0.0230		1.0121	1.0121		0.9470	0.9470		2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>2.1351</b>	<b>18.0521</b>	<b>14.6913</b>	<b>0.0230</b>		<b>1.0121</b>	<b>1.0121</b>		<b>0.9470</b>	<b>0.9470</b>		<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1251</b>	<b>0.3282</b>	<b>0.8312</b>	<b>2.6700e-003</b>	<b>0.2271</b>	<b>3.2800e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0800e-003</b>	<b>0.0636</b>		<b>270.0976</b>	<b>270.0976</b>	<b>0.0117</b>		<b>270.3905</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1251</b>	<b>0.3282</b>	<b>0.8312</b>	<b>2.6700e-003</b>	<b>0.2271</b>	<b>3.2800e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0800e-003</b>	<b>0.0636</b>		<b>270.0976</b>	<b>270.0976</b>	<b>0.0117</b>		<b>270.3905</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9224	16.6027	14.3715	0.0230		0.8838	0.8838		0.8270	0.8270		2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>1.9224</b>	<b>16.6027</b>	<b>14.3715</b>	<b>0.0230</b>		<b>0.8838</b>	<b>0.8838</b>		<b>0.8270</b>	<b>0.8270</b>		<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.1081	0.0722	0.6948	2.0600e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		205.6943	205.6943	6.1900e-003		205.8491
<b>Total</b>	<b>0.1159</b>	<b>0.2975</b>	<b>0.7586</b>	<b>2.5900e-003</b>	<b>0.2271</b>	<b>2.6200e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4600e-003</b>	<b>0.0630</b>		<b>262.9868</b>	<b>262.9868</b>	<b>0.0108</b>		<b>263.2568</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>



North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.1081	0.0722	0.6948	2.0600e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		205.6943	205.6943	6.1900e-003		205.8491
<b>Total</b>	<b>0.1159</b>	<b>0.2975</b>	<b>0.7586</b>	<b>2.5900e-003</b>	<b>0.2271</b>	<b>2.6200e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4600e-003</b>	<b>0.0630</b>		<b>262.9868</b>	<b>262.9868</b>	<b>0.0108</b>		<b>263.2568</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	21.3048	19.4068	0.0364		1.1395	1.1395		1.0676	1.0676		3,508.0941	3,508.0941	0.9688		3,532.3136
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.3142</b>	<b>21.3048</b>	<b>19.4068</b>	<b>0.0364</b>		<b>1.1395</b>	<b>1.1395</b>		<b>1.0676</b>	<b>1.0676</b>		<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3136</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0941	3,508.0941	0.9688		3,532.3135
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3135</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

North City Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

North City Pump Station - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

North City Pump Station - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

North City Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Unmitigated	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1177					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>		<b>1.2800e-003</b>

North City Pump Station - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>		<b>6.8000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators



North City Pump Station - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

**Pure Water Dechlorination Facility**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.81	1000sqft	0.04	1,812.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

## Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading -

Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating -

Vehicle Trips - No mobile trips.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided data.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	90.00
tblConstructionPhase	NumDays	2.00	60.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	1/6/2019	8/2/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	3/29/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	8/13/2019

## Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

tblConstructionPhase	PhaseStartDate	1/7/2019	4/1/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	8/3/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	2.24	0.29
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	1.00	100.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00

## Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	418,562.50	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-7-2019	4-6-2019	0.2527	0.1735
2	4-7-2019	7-6-2019	0.4138	0.2717
3	7-7-2019	9-30-2019	0.1484	0.0963
		Highest	0.4138	0.2717

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.9200e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>7.9200e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0443</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2044</b>



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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.9200e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>7.9200e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0443</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2044</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/1/2019	8/2/2019	5	90	
2	Grading	Grading	1/7/2019	3/29/2019	5	60	
3	Paving	Paving	8/3/2019	8/13/2019	5	7	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Cement and Mortar Mixers	1	8.00	9	0.56
	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
	Pumps	1	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
	Welders	1	8.00	46	0.45
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	5	100.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0431	0.4419	0.3394	5.1000e-004		0.0272	0.0272		0.0251	0.0251	0.0000	46.0352	46.0352	0.0146	0.0000	46.3993
<b>Total</b>	<b>0.0431</b>	<b>0.4419</b>	<b>0.3394</b>	<b>5.1000e-004</b>		<b>0.0272</b>	<b>0.0272</b>		<b>0.0251</b>	<b>0.0251</b>	<b>0.0000</b>	<b>46.0352</b>	<b>46.0352</b>	<b>0.0146</b>	<b>0.0000</b>	<b>46.3993</b>

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**3.2 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1100e-003	0.0565	0.0152	1.2000e-004	2.9900e-003	3.9000e-004	3.3800e-003	8.6000e-004	3.7000e-004	1.2400e-003	0.0000	11.9555	11.9555	9.6000e-004	0.0000	11.9795
Worker	0.0177	0.0136	0.1317	3.7000e-004	0.0361	2.6000e-004	0.0364	9.5900e-003	2.4000e-004	9.8300e-003	0.0000	33.6823	33.6823	1.0800e-003	0.0000	33.7094
<b>Total</b>	<b>0.0199</b>	<b>0.0701</b>	<b>0.1468</b>	<b>4.9000e-004</b>	<b>0.0391</b>	<b>6.5000e-004</b>	<b>0.0397</b>	<b>0.0105</b>	<b>6.1000e-004</b>	<b>0.0111</b>	<b>0.0000</b>	<b>45.6379</b>	<b>45.6379</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>45.6889</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.2758	0.3583	5.1000e-004		0.0174	0.0174		0.0174	0.0174	0.0000	46.0352	46.0352	0.0146	0.0000	46.3993
<b>Total</b>	<b>0.0126</b>	<b>0.2758</b>	<b>0.3583</b>	<b>5.1000e-004</b>		<b>0.0174</b>	<b>0.0174</b>		<b>0.0174</b>	<b>0.0174</b>	<b>0.0000</b>	<b>46.0352</b>	<b>46.0352</b>	<b>0.0146</b>	<b>0.0000</b>	<b>46.3993</b>

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**3.2 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1100e-003	0.0565	0.0152	1.2000e-004	2.9900e-003	3.9000e-004	3.3800e-003	8.6000e-004	3.7000e-004	1.2400e-003	0.0000	11.9555	11.9555	9.6000e-004	0.0000	11.9795
Worker	0.0177	0.0136	0.1317	3.7000e-004	0.0361	2.6000e-004	0.0364	9.5900e-003	2.4000e-004	9.8300e-003	0.0000	33.6823	33.6823	1.0800e-003	0.0000	33.7094
<b>Total</b>	<b>0.0199</b>	<b>0.0701</b>	<b>0.1468</b>	<b>4.9000e-004</b>	<b>0.0391</b>	<b>6.5000e-004</b>	<b>0.0397</b>	<b>0.0105</b>	<b>6.1000e-004</b>	<b>0.0111</b>	<b>0.0000</b>	<b>45.6379</b>	<b>45.6379</b>	<b>2.0400e-003</b>	<b>0.0000</b>	<b>45.6889</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0225	0.2047	0.2245	3.9000e-004		9.4600e-003	9.4600e-003		8.8400e-003	8.8400e-003	0.0000	33.1540	33.1540	9.4000e-003	0.0000	33.3890
<b>Total</b>	<b>0.0225</b>	<b>0.2047</b>	<b>0.2245</b>	<b>3.9000e-004</b>		<b>9.4600e-003</b>	<b>9.4600e-003</b>		<b>8.8400e-003</b>	<b>8.8400e-003</b>	<b>0.0000</b>	<b>33.1540</b>	<b>33.1540</b>	<b>9.4000e-003</b>	<b>0.0000</b>	<b>33.3890</b>

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**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.4500e-003	0.0140	4.0000e-005	3.8500e-003	3.0000e-005	3.8800e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.5928	3.5928	1.2000e-004	0.0000	3.5957
<b>Total</b>	<b>1.8900e-003</b>	<b>1.4500e-003</b>	<b>0.0140</b>	<b>4.0000e-005</b>	<b>3.8500e-003</b>	<b>3.0000e-005</b>	<b>3.8800e-003</b>	<b>1.0200e-003</b>	<b>3.0000e-005</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>3.5928</b>	<b>3.5928</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>3.5957</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6600e-003	0.1481	0.2363	3.9000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	33.1540	33.1540	9.4000e-003	0.0000	33.3889
<b>Total</b>	<b>7.6600e-003</b>	<b>0.1481</b>	<b>0.2363</b>	<b>3.9000e-004</b>		<b>7.1500e-003</b>	<b>7.1500e-003</b>		<b>7.1500e-003</b>	<b>7.1500e-003</b>	<b>0.0000</b>	<b>33.1540</b>	<b>33.1540</b>	<b>9.4000e-003</b>	<b>0.0000</b>	<b>33.3889</b>

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**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.4500e-003	0.0140	4.0000e-005	3.8500e-003	3.0000e-005	3.8800e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.5928	3.5928	1.2000e-004	0.0000	3.5957
<b>Total</b>	<b>1.8900e-003</b>	<b>1.4500e-003</b>	<b>0.0140</b>	<b>4.0000e-005</b>	<b>3.8500e-003</b>	<b>3.0000e-005</b>	<b>3.8800e-003</b>	<b>1.0200e-003</b>	<b>3.0000e-005</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>3.5928</b>	<b>3.5928</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>3.5957</b>

**3.4 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0600e-003	0.0204	0.0177	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.4961	2.4961	7.5000e-004	0.0000	2.5148
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.0600e-003</b>	<b>0.0204</b>	<b>0.0177</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>2.4961</b>	<b>2.4961</b>	<b>7.5000e-004</b>	<b>0.0000</b>	<b>2.5148</b>

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**3.4 Paving - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.6400e-003	0.0000	4.5000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4192	0.4192	1.0000e-005	0.0000	0.4195
<b>Total</b>	<b>2.2000e-004</b>	<b>1.7000e-004</b>	<b>1.6400e-003</b>	<b>0.0000</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>4.5000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.4192</b>	<b>0.4192</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4195</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-004	0.0130	0.0194	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.4961	2.4961	7.5000e-004	0.0000	2.5148
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.3000e-004</b>	<b>0.0130</b>	<b>0.0194</b>	<b>3.0000e-005</b>		<b>7.4000e-004</b>	<b>7.4000e-004</b>		<b>7.4000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.4961</b>	<b>2.4961</b>	<b>7.5000e-004</b>	<b>0.0000</b>	<b>2.5148</b>



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**3.4 Paving - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.6400e-003	0.0000	4.5000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4192	0.4192	1.0000e-005	0.0000	0.4195
<b>Total</b>	<b>2.2000e-004</b>	<b>1.7000e-004</b>	<b>1.6400e-003</b>	<b>0.0000</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>4.5000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.4192</b>	<b>0.4192</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4195</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.9200e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	7.9200e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>7.9200e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>7.9200e-003</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>



Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Pure Water Dechlorination Facility - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**Pure Water Dechlorination Facility**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.81	1000sqft	0.04	1,812.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading -

Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating -

Vehicle Trips - No mobile trips.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided data.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	90.00
tblConstructionPhase	NumDays	2.00	60.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	1/6/2019	8/2/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	3/29/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	8/13/2019

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

tblConstructionPhase	PhaseStartDate	1/7/2019	4/1/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	8/3/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	2.24	0.29
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	1.00	100.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00

## Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	418,562.50	10,400.00

## 2.0 Emissions Summary

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/1/2019	8/2/2019	5	90	
2	Grading	Grading	1/7/2019	3/29/2019	5	60	
3	Paving	Paving	8/3/2019	8/13/2019	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Cement and Mortar Mixers	1	8.00	9	0.56
	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
	Pumps	1	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
	Welders	1	8.00	46	0.45
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	5	100.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**3.2 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
<b>Total</b>	<b>0.9576</b>	<b>9.8207</b>	<b>7.5432</b>	<b>0.0114</b>		<b>0.6054</b>	<b>0.6054</b>		<b>0.5569</b>	<b>0.5569</b>		<b>1,127.6696</b>	<b>1,127.6696</b>	<b>0.3568</b>		<b>1,136.5892</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0460	1.2399	0.3201	2.7600e-003	0.0677	8.6300e-003	0.0763	0.0195	8.2500e-003	0.0277		296.0166	296.0166	0.0229		296.5880
Worker	0.3927	0.2740	3.0941	8.7400e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		870.1996	870.1996	0.0278		870.8943
<b>Total</b>	<b>0.4387</b>	<b>1.5139</b>	<b>3.4142</b>	<b>0.0115</b>	<b>0.8892</b>	<b>0.0145</b>	<b>0.9037</b>	<b>0.2374</b>	<b>0.0137</b>	<b>0.2510</b>		<b>1,166.2163</b>	<b>1,166.2163</b>	<b>0.0506</b>		<b>1,167.4823</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**3.2 Building Construction - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2793	6.1296	7.9624	0.0114		0.3855	0.3855		0.3855	0.3855	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
<b>Total</b>	<b>0.2793</b>	<b>6.1296</b>	<b>7.9624</b>	<b>0.0114</b>		<b>0.3855</b>	<b>0.3855</b>		<b>0.3855</b>	<b>0.3855</b>	<b>0.0000</b>	<b>1,127.6696</b>	<b>1,127.6696</b>	<b>0.3568</b>		<b>1,136.5892</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0460	1.2399	0.3201	2.7600e-003	0.0677	8.6300e-003	0.0763	0.0195	8.2500e-003	0.0277		296.0166	296.0166	0.0229		296.5880
Worker	0.3927	0.2740	3.0941	8.7400e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		870.1996	870.1996	0.0278		870.8943
<b>Total</b>	<b>0.4387</b>	<b>1.5139</b>	<b>3.4142</b>	<b>0.0115</b>	<b>0.8892</b>	<b>0.0145</b>	<b>0.9037</b>	<b>0.2374</b>	<b>0.0137</b>	<b>0.2510</b>		<b>1,166.2163</b>	<b>1,166.2163</b>	<b>0.0506</b>		<b>1,167.4823</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7514	6.8242	7.4816	0.0129		0.3153	0.3153		0.2945	0.2945		1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>	<b>6.8242</b>	<b>7.4816</b>	<b>0.0129</b>		<b>0.3153</b>	<b>0.3153</b>		<b>0.2945</b>	<b>0.2945</b>		<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2554	4.9380	7.8752	0.0129		0.2384	0.2384		0.2384	0.2384	0.0000	1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.2554</b>	<b>4.9380</b>	<b>7.8752</b>	<b>0.0129</b>		<b>0.2384</b>	<b>0.2384</b>		<b>0.2384</b>	<b>0.2384</b>	<b>0.0000</b>	<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>



Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**3.4 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5878	5.8310	5.0598	8.0700e-003		0.3183	0.3183		0.2942	0.2942		786.1223	786.1223	0.2360		792.0218
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5878</b>	<b>5.8310</b>	<b>5.0598</b>	<b>8.0700e-003</b>		<b>0.3183</b>	<b>0.3183</b>		<b>0.2942</b>	<b>0.2942</b>		<b>786.1223</b>	<b>786.1223</b>	<b>0.2360</b>		<b>792.0218</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**3.4 Paving - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1799	3.7032	5.5468	8.0700e-003		0.2108	0.2108		0.2108	0.2108	0.0000	786.1223	786.1223	0.2360		792.0218
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.1799</b>	<b>3.7032</b>	<b>5.5468</b>	<b>8.0700e-003</b>		<b>0.2108</b>	<b>0.2108</b>		<b>0.2108</b>	<b>0.2108</b>	<b>0.0000</b>	<b>786.1223</b>	<b>786.1223</b>	<b>0.2360</b>		<b>792.0218</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

**4.0 Operational Detail - Mobile**

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
Unmitigated	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.6000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>		<b>4.2000e-004</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.6000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>		<b>4.2000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Pure Water Dechlorination Facility - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**Pure Water Dechlorination Facility**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.81	1000sqft	0.04	1,812.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading -

Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating -

Vehicle Trips - No mobile trips.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided data.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	90.00
tblConstructionPhase	NumDays	2.00	60.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	1/6/2019	8/2/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	3/29/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	8/13/2019

## Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

tblConstructionPhase	PhaseStartDate	1/7/2019	4/1/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	8/3/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	2.24	0.29
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	1.00	100.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00

## Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	418,562.50	10,400.00

## 2.0 Emissions Summary

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/1/2019	8/2/2019	5	90	
2	Grading	Grading	1/7/2019	3/29/2019	5	60	
3	Paving	Paving	8/3/2019	8/13/2019	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment



Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
	Cement and Mortar Mixers	1	8.00	9	0.56
	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
	Pumps	1	8.00	84	0.74
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
	Welders	1	8.00	46	0.45
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	5	100.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**3.2 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
<b>Total</b>	<b>0.9576</b>	<b>9.8207</b>	<b>7.5432</b>	<b>0.0114</b>		<b>0.6054</b>	<b>0.6054</b>		<b>0.5569</b>	<b>0.5569</b>		<b>1,127.6696</b>	<b>1,127.6696</b>	<b>0.3568</b>		<b>1,136.5892</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0480	1.2409	0.3549	2.6900e-003	0.0677	8.7800e-003	0.0765	0.0195	8.4000e-003	0.0279		288.5003	288.5003	0.0243		289.1081
Worker	0.4441	0.3078	2.9239	8.2000e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		816.9138	816.9138	0.0264		817.5727
<b>Total</b>	<b>0.4921</b>	<b>1.5486</b>	<b>3.2788</b>	<b>0.0109</b>	<b>0.8892</b>	<b>0.0146</b>	<b>0.9038</b>	<b>0.2374</b>	<b>0.0138</b>	<b>0.2512</b>		<b>1,105.4140</b>	<b>1,105.4140</b>	<b>0.0507</b>		<b>1,106.6808</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**3.2 Building Construction - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2793	6.1296	7.9624	0.0114		0.3855	0.3855		0.3855	0.3855	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
<b>Total</b>	<b>0.2793</b>	<b>6.1296</b>	<b>7.9624</b>	<b>0.0114</b>		<b>0.3855</b>	<b>0.3855</b>		<b>0.3855</b>	<b>0.3855</b>	<b>0.0000</b>	<b>1,127.6696</b>	<b>1,127.6696</b>	<b>0.3568</b>		<b>1,136.5892</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0480	1.2409	0.3549	2.6900e-003	0.0677	8.7800e-003	0.0765	0.0195	8.4000e-003	0.0279		288.5003	288.5003	0.0243		289.1081
Worker	0.4441	0.3078	2.9239	8.2000e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		816.9138	816.9138	0.0264		817.5727
<b>Total</b>	<b>0.4921</b>	<b>1.5486</b>	<b>3.2788</b>	<b>0.0109</b>	<b>0.8892</b>	<b>0.0146</b>	<b>0.9038</b>	<b>0.2374</b>	<b>0.0138</b>	<b>0.2512</b>		<b>1,105.4140</b>	<b>1,105.4140</b>	<b>0.0507</b>		<b>1,106.6808</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7514	6.8242	7.4816	0.0129		0.3153	0.3153		0.2945	0.2945		1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>	<b>6.8242</b>	<b>7.4816</b>	<b>0.0129</b>		<b>0.3153</b>	<b>0.3153</b>		<b>0.2945</b>	<b>0.2945</b>		<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2554	4.9380	7.8752	0.0129		0.2384	0.2384		0.2384	0.2384	0.0000	1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.2554</b>	<b>4.9380</b>	<b>7.8752</b>	<b>0.0129</b>		<b>0.2384</b>	<b>0.2384</b>		<b>0.2384</b>	<b>0.2384</b>	<b>0.0000</b>	<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**3.4 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5878	5.8310	5.0598	8.0700e-003		0.3183	0.3183		0.2942	0.2942		786.1223	786.1223	0.2360		792.0218
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5878</b>	<b>5.8310</b>	<b>5.0598</b>	<b>8.0700e-003</b>		<b>0.3183</b>	<b>0.3183</b>		<b>0.2942</b>	<b>0.2942</b>		<b>786.1223</b>	<b>786.1223</b>	<b>0.2360</b>		<b>792.0218</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**3.4 Paving - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1799	3.7032	5.5468	8.0700e-003		0.2108	0.2108		0.2108	0.2108	0.0000	786.1223	786.1223	0.2360		792.0218
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.1799</b>	<b>3.7032</b>	<b>5.5468</b>	<b>8.0700e-003</b>		<b>0.2108</b>	<b>0.2108</b>		<b>0.2108</b>	<b>0.2108</b>	<b>0.0000</b>	<b>786.1223</b>	<b>786.1223</b>	<b>0.2360</b>		<b>792.0218</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

**4.0 Operational Detail - Mobile**

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Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193



Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
Unmitigated	0.0434	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.6000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>		<b>4.2000e-004</b>

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.6000e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0388					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.0000e-004	4.0000e-004	0.0000		4.2000e-004
<b>Total</b>	<b>0.0434</b>	<b>0.0000</b>	<b>1.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>		<b>4.2000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Pure Water Dechlorination Facility - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Renewable Energy Facility - San Diego County APCD Air District, Annual

**Renewable Energy Facility**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.98	1000sqft	0.39	16,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - See Section 7.2.1 for construction details.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - No solid waste generated.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - Reclaimed water use based on Initial Study DEP No. 96-0071.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

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Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00



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tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	3.10
tblLandUse	BuildingSpaceSquareFeet	16,980.00	16,975.00
tblLandUse	LandUseSquareFeet	16,980.00	16,975.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	21.06	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	7.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,926,625.00	36,500.00
tblWater	OutdoorWaterUseRate	0.00	29,565,000.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2020	8-31-2020	0.4558	0.2896
2	9-1-2020	11-30-2020	0.4510	0.2866
3	12-1-2020	2-28-2021	0.4174	0.2825
4	3-1-2021	5-31-2021	0.3917	0.2733
5	6-1-2021	8-31-2021	0.0126	0.0083
		Highest	0.4558	0.2896

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0663	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0116	107.5013	107.5129	5.5200e-003	9.2000e-004	107.9259
<b>Total</b>	<b>0.0663</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>	<b>107.5016</b>	<b>107.5132</b>	<b>5.5200e-003</b>	<b>9.2000e-004</b>	<b>107.9262</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0614	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0116	20.4457	20.4573	2.0100e-003	2.0000e-004	20.5667
<b>Total</b>	<b>0.0614</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>	<b>20.4459</b>	<b>20.4575</b>	<b>2.0100e-003</b>	<b>2.0000e-004</b>	<b>20.5669</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.48	0.00	43.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.98	80.97	63.59	78.26	80.94

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	3/27/2020	5	10	
3	Building Construction	Building Construction	3/30/2020	5/21/2021	5	300	
4	Paving	Paving	5/24/2021	6/4/2021	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 3.1**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Renewable Energy Facility - San Diego County APCD Air District, Annual

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0942	0.0619	1.0000e-004		5.1000e-003	5.1000e-003		4.7700e-003	4.7700e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>9.5800e-003</b>	<b>0.0942</b>	<b>0.0619</b>	<b>1.0000e-004</b>	<b>1.4900e-003</b>	<b>5.1000e-003</b>	<b>6.5900e-003</b>	<b>2.3000e-004</b>	<b>4.7700e-003</b>	<b>5.0000e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	1.9900e-003	4.6000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5399	0.5399	5.0000e-005	0.0000	0.5411
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>2.4000e-004</b>	<b>2.1300e-003</b>	<b>1.8000e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>1.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.9023</b>	<b>0.9023</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.9038</b>

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**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.7000e-004	0.0000	6.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4300e-003	0.0518	0.0654	1.0000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>2.4300e-003</b>	<b>0.0518</b>	<b>0.0654</b>	<b>1.0000e-004</b>	<b>6.7000e-004</b>	<b>2.9800e-003</b>	<b>3.6500e-003</b>	<b>1.0000e-004</b>	<b>2.9800e-003</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	1.9900e-003	4.6000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5399	0.5399	5.0000e-005	0.0000	0.5411
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>2.4000e-004</b>	<b>2.1300e-003</b>	<b>1.8000e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>1.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.9023</b>	<b>0.9023</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.9038</b>



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**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0257	0.0000	0.0257	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0942	0.0619	1.0000e-004		5.1000e-003	5.1000e-003		4.7700e-003	4.7700e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>9.5800e-003</b>	<b>0.0942</b>	<b>0.0619</b>	<b>1.0000e-004</b>	<b>0.0257</b>	<b>5.1000e-003</b>	<b>0.0308</b>	<b>0.0134</b>	<b>4.7700e-003</b>	<b>0.0182</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3624</b>	<b>0.3624</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3627</b>

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**3.3 Grading - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0116	0.0000	0.0116	6.0400e-003	0.0000	6.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4300e-003	0.0518	0.0654	1.0000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>2.4300e-003</b>	<b>0.0518</b>	<b>0.0654</b>	<b>1.0000e-004</b>	<b>0.0116</b>	<b>2.9800e-003</b>	<b>0.0146</b>	<b>6.0400e-003</b>	<b>2.9800e-003</b>	<b>9.0200e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3624</b>	<b>0.3624</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3627</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1155	1.2136	0.8990	1.5000e-003		0.0678	0.0678		0.0624	0.0624	0.0000	131.4607	131.4607	0.0425	0.0000	132.5236
<b>Total</b>	<b>0.1155</b>	<b>1.2136</b>	<b>0.8990</b>	<b>1.5000e-003</b>		<b>0.0678</b>	<b>0.0678</b>		<b>0.0624</b>	<b>0.0624</b>	<b>0.0000</b>	<b>131.4607</b>	<b>131.4607</b>	<b>0.0425</b>	<b>0.0000</b>	<b>132.5236</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0454	0.0121	1.1000e-004	2.6400e-003	2.2000e-004	2.8600e-003	7.6000e-004	2.1000e-004	9.7000e-004	0.0000	10.5017	10.5017	8.0000e-004	0.0000	10.5218
Worker	2.9300e-003	2.1700e-003	0.0213	6.0000e-005	6.3800e-003	5.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7400e-003	0.0000	5.7700	5.7700	1.7000e-004	0.0000	5.7743
<b>Total</b>	<b>4.4500e-003</b>	<b>0.0475</b>	<b>0.0334</b>	<b>1.7000e-004</b>	<b>9.0200e-003</b>	<b>2.7000e-004</b>	<b>9.2900e-003</b>	<b>2.4600e-003</b>	<b>2.5000e-004</b>	<b>2.7100e-003</b>	<b>0.0000</b>	<b>16.2717</b>	<b>16.2717</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>16.2962</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0367	0.7891	1.0029	1.5000e-003		0.0465	0.0465		0.0465	0.0465	0.0000	131.4606	131.4606	0.0425	0.0000	132.5235
<b>Total</b>	<b>0.0367</b>	<b>0.7891</b>	<b>1.0029</b>	<b>1.5000e-003</b>		<b>0.0465</b>	<b>0.0465</b>		<b>0.0465</b>	<b>0.0465</b>	<b>0.0000</b>	<b>131.4606</b>	<b>131.4606</b>	<b>0.0425</b>	<b>0.0000</b>	<b>132.5235</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0454	0.0121	1.1000e-004	2.6400e-003	2.2000e-004	2.8600e-003	7.6000e-004	2.1000e-004	9.7000e-004	0.0000	10.5017	10.5017	8.0000e-004	0.0000	10.5218
Worker	2.9300e-003	2.1700e-003	0.0213	6.0000e-005	6.3800e-003	5.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7400e-003	0.0000	5.7700	5.7700	1.7000e-004	0.0000	5.7743
<b>Total</b>	<b>4.4500e-003</b>	<b>0.0475</b>	<b>0.0334</b>	<b>1.7000e-004</b>	<b>9.0200e-003</b>	<b>2.7000e-004</b>	<b>9.2900e-003</b>	<b>2.4600e-003</b>	<b>2.5000e-004</b>	<b>2.7100e-003</b>	<b>0.0000</b>	<b>16.2717</b>	<b>16.2717</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>16.2962</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0528	0.5555	0.4464	7.6000e-004		0.0297	0.0297		0.0273	0.0273	0.0000	66.7310	66.7310	0.0216	0.0000	67.2706
<b>Total</b>	<b>0.0528</b>	<b>0.5555</b>	<b>0.4464</b>	<b>7.6000e-004</b>		<b>0.0297</b>	<b>0.0297</b>		<b>0.0273</b>	<b>0.0273</b>	<b>0.0000</b>	<b>66.7310</b>	<b>66.7310</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.2706</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2000e-004	0.0208	5.5400e-003	5.0000e-005	1.3400e-003	4.0000e-005	1.3800e-003	3.9000e-004	4.0000e-005	4.3000e-004	0.0000	5.2811	5.2811	3.9000e-004	0.0000	5.2909
Worker	1.4000e-003	1.0000e-003	0.0101	3.0000e-005	3.2400e-003	2.0000e-005	3.2600e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.8301	2.8301	8.0000e-005	0.0000	2.8321
<b>Total</b>	<b>2.0200e-003</b>	<b>0.0218</b>	<b>0.0156</b>	<b>8.0000e-005</b>	<b>4.5800e-003</b>	<b>6.0000e-005</b>	<b>4.6400e-003</b>	<b>1.2500e-003</b>	<b>6.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>8.1112</b>	<b>8.1112</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>8.1230</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0186	0.4005	0.5090	7.6000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	66.7309	66.7309	0.0216	0.0000	67.2705
<b>Total</b>	<b>0.0186</b>	<b>0.4005</b>	<b>0.5090</b>	<b>7.6000e-004</b>		<b>0.0236</b>	<b>0.0236</b>		<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>66.7309</b>	<b>66.7309</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.2705</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2000e-004	0.0208	5.5400e-003	5.0000e-005	1.3400e-003	4.0000e-005	1.3800e-003	3.9000e-004	4.0000e-005	4.3000e-004	0.0000	5.2811	5.2811	3.9000e-004	0.0000	5.2909
Worker	1.4000e-003	1.0000e-003	0.0101	3.0000e-005	3.2400e-003	2.0000e-005	3.2600e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.8301	2.8301	8.0000e-005	0.0000	2.8321
<b>Total</b>	<b>2.0200e-003</b>	<b>0.0218</b>	<b>0.0156</b>	<b>8.0000e-005</b>	<b>4.5800e-003</b>	<b>6.0000e-005</b>	<b>4.6400e-003</b>	<b>1.2500e-003</b>	<b>6.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>8.1112</b>	<b>8.1112</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>8.1230</b>

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**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2900e-003	0.0394	0.0414	7.0000e-005		2.0600e-003	2.0600e-003		1.9200e-003	1.9200e-003	0.0000	5.4981	5.4981	1.5800e-003	0.0000	5.5375
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.2900e-003</b>	<b>0.0394</b>	<b>0.0414</b>	<b>7.0000e-005</b>		<b>2.0600e-003</b>	<b>2.0600e-003</b>		<b>1.9200e-003</b>	<b>1.9200e-003</b>	<b>0.0000</b>	<b>5.4981</b>	<b>5.4981</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>5.5375</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
<b>Total</b>	<b>3.1000e-004</b>	<b>2.2000e-004</b>	<b>2.2500e-003</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6305</b>	<b>0.6305</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6309</b>

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**3.5 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2800e-003	0.0272	0.0394	7.0000e-005		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	5.4981	5.4981	1.5800e-003	0.0000	5.5375
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.2800e-003</b>	<b>0.0272</b>	<b>0.0394</b>	<b>7.0000e-005</b>		<b>1.6600e-003</b>	<b>1.6600e-003</b>		<b>1.6600e-003</b>	<b>1.6600e-003</b>	<b>0.0000</b>	<b>5.4981</b>	<b>5.4981</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>5.5375</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
<b>Total</b>	<b>3.1000e-004</b>	<b>2.2000e-004</b>	<b>2.2500e-003</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6305</b>	<b>0.6305</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6309</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0614	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Unmitigated	0.0663	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
<b>Total</b>	<b>0.0663</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.2000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
<b>Total</b>	<b>0.0614</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.7000e-004</b>

**7.0 Water Detail**

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### 7.1 Mitigation Measures Water

#### Use Reclaimed Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.4573	2.0100e-003	2.0000e-004	20.5667
Unmitigated	107.5129	5.5200e-003	9.2000e-004	107.9259

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0365 / 29.565	107.5129	5.5200e-003	9.2000e-004	107.9259
<b>Total</b>		<b>107.5129</b>	<b>5.5200e-003</b>	<b>9.2000e-004</b>	<b>107.9259</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0365 / 5.58834	20.4573	2.0100e-003	2.0000e-004	20.5667
<b>Total</b>		<b>20.4573</b>	<b>2.0100e-003</b>	<b>2.0000e-004</b>	<b>20.5667</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Renewable Energy Facility - San Diego County APCD Air District, Summer

**Renewable Energy Facility**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.98	1000sqft	0.39	16,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Renewable Energy Facility - San Diego County APCD Air District, Summer

Demolition - See Section 7.2.1 for construction details.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - No solid waste generated.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - Reclaimed water use based on Initial Study DEP No. 96-0071.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Renewable Energy Facility - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00

## Renewable Energy Facility - San Diego County APCD Air District, Summer

tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	3.10
tblLandUse	BuildingSpaceSquareFeet	16,980.00	16,975.00
tblLandUse	LandUseSquareFeet	16,980.00	16,975.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	21.06	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	7.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,926,625.00	36,500.00
tblWater	OutdoorWaterUseRate	0.00	29,565,000.00

## 2.0 Emissions Summary

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Renewable Energy Facility - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.9600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1100e-003</b>



## Renewable Energy Facility - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.50	50.00	41.95	0.00	0.00	100.00	100.00	0.00	100.00	100.00	0.00	46.24	46.24	100.00	0.00	46.72

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	3/27/2020	5	10	
3	Building Construction	Building Construction	3/30/2020	5/21/2021	5	300	
4	Paving	Paving	5/24/2021	6/4/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Renewable Energy Facility - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2990	0.0000	0.2990	0.0453	0.0000	0.0453			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>0.2990</b>	<b>1.0194</b>	<b>1.3184</b>	<b>0.0453</b>	<b>0.9537</b>	<b>0.9990</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3906	0.0887	1.1000e-003	0.0245	1.2500e-003	0.0257	6.7000e-003	1.1900e-003	7.9000e-003		119.8857	119.8857	0.0106		120.1497
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0478</b>	<b>0.4153</b>	<b>0.3721</b>	<b>1.9500e-003</b>	<b>0.1066</b>	<b>1.8300e-003</b>	<b>0.1084</b>	<b>0.0285</b>	<b>1.7200e-003</b>	<b>0.0302</b>		<b>204.1604</b>	<b>204.1604</b>	<b>0.0131</b>		<b>204.4874</b>

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**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1346	0.0000	0.1346	0.0204	0.0000	0.0204			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>0.1346</b>	<b>0.5966</b>	<b>0.7312</b>	<b>0.0204</b>	<b>0.5966</b>	<b>0.6170</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3906	0.0887	1.1000e-003	0.0245	1.2500e-003	0.0257	6.7000e-003	1.1900e-003	7.9000e-003		119.8857	119.8857	0.0106		120.1497
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0478</b>	<b>0.4153</b>	<b>0.3721</b>	<b>1.9500e-003</b>	<b>0.1066</b>	<b>1.8300e-003</b>	<b>0.1084</b>	<b>0.0285</b>	<b>1.7200e-003</b>	<b>0.0302</b>		<b>204.1604</b>	<b>204.1604</b>	<b>0.0131</b>		<b>204.4874</b>

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**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.1464	0.0000	5.1464	2.6837	0.0000	2.6837			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>5.1464</b>	<b>1.0194</b>	<b>6.1658</b>	<b>2.6837</b>	<b>0.9537</b>	<b>3.6374</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0367</b>	<b>0.0247</b>	<b>0.2835</b>	<b>8.5000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>84.2747</b>	<b>84.2747</b>	<b>2.5200e-003</b>		<b>84.3376</b>

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**3.3 Grading - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3159	0.0000	2.3159	1.2077	0.0000	1.2077			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>2.3159</b>	<b>0.5966</b>	<b>2.9125</b>	<b>1.2077</b>	<b>0.5966</b>	<b>1.8043</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0367</b>	<b>0.0247</b>	<b>0.2835</b>	<b>8.5000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>84.2747</b>	<b>84.2747</b>	<b>2.5200e-003</b>		<b>84.3376</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1604	12.1968	9.0353	0.0150		0.6818	0.6818		0.6273	0.6273		1,456.3883	1,456.3883	0.4710		1,468.1640
<b>Total</b>	<b>1.1604</b>	<b>12.1968</b>	<b>9.0353</b>	<b>0.0150</b>		<b>0.6818</b>	<b>0.6818</b>		<b>0.6273</b>	<b>0.6273</b>		<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1640</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0150	0.4510	0.1149	1.1000e-003	0.0271	2.2100e-003	0.0293	7.8000e-003	2.1100e-003	9.9100e-003		117.6160	117.6160	8.6800e-003		117.8330
Worker	0.0294	0.0198	0.2268	6.8000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		67.4198	67.4198	2.0100e-003		67.4701
<b>Total</b>	<b>0.0443</b>	<b>0.4708</b>	<b>0.3417</b>	<b>1.7800e-003</b>	<b>0.0928</b>	<b>2.6700e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5300e-003</b>	<b>0.0278</b>		<b>185.0358</b>	<b>185.0358</b>	<b>0.0107</b>		<b>185.3030</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.3883	1,456.3883	0.4710		1,468.1639
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1639</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0150	0.4510	0.1149	1.1000e-003	0.0271	2.2100e-003	0.0293	7.8000e-003	2.1100e-003	9.9100e-003		117.6160	117.6160	8.6800e-003		117.8330
Worker	0.0294	0.0198	0.2268	6.8000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		67.4198	67.4198	2.0100e-003		67.4701
<b>Total</b>	<b>0.0443</b>	<b>0.4708</b>	<b>0.3417</b>	<b>1.7800e-003</b>	<b>0.0928</b>	<b>2.6700e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5300e-003</b>	<b>0.0278</b>		<b>185.0358</b>	<b>185.0358</b>	<b>0.0107</b>		<b>185.3030</b>



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**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0461	10.9992	8.8390	0.0150		0.5878	0.5878		0.5408	0.5408		1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>1.0461</b>	<b>10.9992</b>	<b>8.8390</b>	<b>0.0150</b>		<b>0.5878</b>	<b>0.5878</b>		<b>0.5408</b>	<b>0.5408</b>		<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.4073	0.1038	1.0800e-003	0.0271	8.6000e-004	0.0279	7.8000e-003	8.2000e-004	8.6100e-003		116.5408	116.5408	8.3300e-003		116.7490
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
<b>Total</b>	<b>0.0398</b>	<b>0.4253</b>	<b>0.3160</b>	<b>1.7300e-003</b>	<b>0.0928</b>	<b>1.3100e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2400e-003</b>	<b>0.0265</b>		<b>181.6961</b>	<b>181.6961</b>	<b>0.0102</b>		<b>181.9507</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.4073	0.1038	1.0800e-003	0.0271	8.6000e-004	0.0279	7.8000e-003	8.2000e-004	8.6100e-003		116.5408	116.5408	8.3300e-003		116.7490
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
<b>Total</b>	<b>0.0398</b>	<b>0.4253</b>	<b>0.3160</b>	<b>1.7300e-003</b>	<b>0.0928</b>	<b>1.3100e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2400e-003</b>	<b>0.0265</b>		<b>181.6961</b>	<b>181.6961</b>	<b>0.0102</b>		<b>181.9507</b>

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**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8580	7.8878	8.2789	0.0133		0.4121	0.4121		0.3837	0.3837		1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8580</b>	<b>7.8878</b>	<b>8.2789</b>	<b>0.0133</b>		<b>0.4121</b>	<b>0.4121</b>		<b>0.3837</b>	<b>0.3837</b>		<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0405	0.4774	1.4700e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		146.5994	146.5994	4.1800e-003		146.7040
<b>Total</b>	<b>0.0623</b>	<b>0.0405</b>	<b>0.4774</b>	<b>1.4700e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>146.5994</b>	<b>146.5994</b>	<b>4.1800e-003</b>		<b>146.7040</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2559	5.4376	7.8889	0.0133		0.3323	0.3323		0.3323	0.3323	0.0000	1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2559</b>	<b>5.4376</b>	<b>7.8889</b>	<b>0.0133</b>		<b>0.3323</b>	<b>0.3323</b>		<b>0.3323</b>	<b>0.3323</b>	<b>0.0000</b>	<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0405	0.4774	1.4700e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		146.5994	146.5994	4.1800e-003		146.7040
<b>Total</b>	<b>0.0623</b>	<b>0.0405</b>	<b>0.4774</b>	<b>1.4700e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>146.5994</b>	<b>146.5994</b>	<b>4.1800e-003</b>		<b>146.7040</b>

**4.0 Operational Detail - Mobile**

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Renewable Energy Facility - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

Renewable Energy Facility - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Renewable Energy Facility - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Renewable Energy Facility - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Unmitigated	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003



Renewable Energy Facility - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6000e-004	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>		<b>3.9600e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3361					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>		<b>2.1100e-003</b>

**7.0 Water Detail**

## Renewable Energy Facility - San Diego County APCD Air District, Summer

**7.1 Mitigation Measures Water**

Use Reclaimed Water

**8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

Renewable Energy Facility - San Diego County APCD Air District, Winter

**Renewable Energy Facility**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.98	1000sqft	0.39	16,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Renewable Energy Facility - San Diego County APCD Air District, Winter

Demolition - See Section 7.2.1 for construction details.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - No solid waste generated.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - Reclaimed water use based on Initial Study DEP No. 96-0071.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Renewable Energy Facility - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00

## Renewable Energy Facility - San Diego County APCD Air District, Winter

tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	3.10
tblLandUse	BuildingSpaceSquareFeet	16,980.00	16,975.00
tblLandUse	LandUseSquareFeet	16,980.00	16,975.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	21.06	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	7.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,926,625.00	36,500.00
tblWater	OutdoorWaterUseRate	0.00	29,565,000.00

## 2.0 Emissions Summary

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Renewable Energy Facility - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.9600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1100e-003</b>



## Renewable Energy Facility - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.50	50.00	41.95	0.00	0.00	100.00	100.00	0.00	100.00	100.00	0.00	46.24	46.24	100.00	0.00	46.72

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	3/27/2020	5	10	
3	Building Construction	Building Construction	3/30/2020	5/21/2021	5	300	
4	Paving	Paving	5/24/2021	6/4/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Renewable Energy Facility - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2990	0.0000	0.2990	0.0453	0.0000	0.0453			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>0.2990</b>	<b>1.0194</b>	<b>1.3184</b>	<b>0.0453</b>	<b>0.9537</b>	<b>0.9990</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0114	0.3943	0.0945	1.0800e-003	0.0245	1.2700e-003	0.0257	6.7000e-003	1.2200e-003	7.9200e-003		117.8290	117.8290	0.0109		118.1020
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0529</b>	<b>0.4221</b>	<b>0.3618</b>	<b>1.8700e-003</b>	<b>0.1066</b>	<b>1.8500e-003</b>	<b>0.1085</b>	<b>0.0285</b>	<b>1.7500e-003</b>	<b>0.0302</b>		<b>196.9422</b>	<b>196.9422</b>	<b>0.0133</b>		<b>197.2748</b>

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**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1346	0.0000	0.1346	0.0204	0.0000	0.0204			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>0.1346</b>	<b>0.5966</b>	<b>0.7312</b>	<b>0.0204</b>	<b>0.5966</b>	<b>0.6170</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0114	0.3943	0.0945	1.0800e-003	0.0245	1.2700e-003	0.0257	6.7000e-003	1.2200e-003	7.9200e-003		117.8290	117.8290	0.0109		118.1020
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0529</b>	<b>0.4221</b>	<b>0.3618</b>	<b>1.8700e-003</b>	<b>0.1066</b>	<b>1.8500e-003</b>	<b>0.1085</b>	<b>0.0285</b>	<b>1.7500e-003</b>	<b>0.0302</b>		<b>196.9422</b>	<b>196.9422</b>	<b>0.0133</b>		<b>197.2748</b>

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**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.1464	0.0000	5.1464	2.6837	0.0000	2.6837			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>5.1464</b>	<b>1.0194</b>	<b>6.1658</b>	<b>2.6837</b>	<b>0.9537</b>	<b>3.6374</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0416</b>	<b>0.0278</b>	<b>0.2673</b>	<b>7.9000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>79.1132</b>	<b>79.1132</b>	<b>2.3800e-003</b>		<b>79.1727</b>

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**3.3 Grading - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3159	0.0000	2.3159	1.2077	0.0000	1.2077			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>2.3159</b>	<b>0.5966</b>	<b>2.9125</b>	<b>1.2077</b>	<b>0.5966</b>	<b>1.8043</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0416</b>	<b>0.0278</b>	<b>0.2673</b>	<b>7.9000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>79.1132</b>	<b>79.1132</b>	<b>2.3800e-003</b>		<b>79.1727</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1604	12.1968	9.0353	0.0150		0.6818	0.6818		0.6273	0.6273		1,456.3883	1,456.3883	0.4710		1,468.1640
<b>Total</b>	<b>1.1604</b>	<b>12.1968</b>	<b>9.0353</b>	<b>0.0150</b>		<b>0.6818</b>	<b>0.6818</b>		<b>0.6273</b>	<b>0.6273</b>		<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1640</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0157	0.4507	0.1275	1.0700e-003	0.0271	2.2500e-003	0.0293	7.8000e-003	2.1500e-003	9.9500e-003		114.5849	114.5849	9.2200e-003		114.8154
Worker	0.0333	0.0222	0.2138	6.4000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.2906	63.2906	1.9100e-003		63.3382
<b>Total</b>	<b>0.0489</b>	<b>0.4729</b>	<b>0.3413</b>	<b>1.7100e-003</b>	<b>0.0928</b>	<b>2.7100e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5700e-003</b>	<b>0.0278</b>		<b>177.8755</b>	<b>177.8755</b>	<b>0.0111</b>		<b>178.1536</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.3883	1,456.3883	0.4710		1,468.1639
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1639</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0157	0.4507	0.1275	1.0700e-003	0.0271	2.2500e-003	0.0293	7.8000e-003	2.1500e-003	9.9500e-003		114.5849	114.5849	9.2200e-003		114.8154
Worker	0.0333	0.0222	0.2138	6.4000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.2906	63.2906	1.9100e-003		63.3382
<b>Total</b>	<b>0.0489</b>	<b>0.4729</b>	<b>0.3413</b>	<b>1.7100e-003</b>	<b>0.0928</b>	<b>2.7100e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5700e-003</b>	<b>0.0278</b>		<b>177.8755</b>	<b>177.8755</b>	<b>0.0111</b>		<b>178.1536</b>



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**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0461	10.9992	8.8390	0.0150		0.5878	0.5878		0.5408	0.5408		1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>1.0461</b>	<b>10.9992</b>	<b>8.8390</b>	<b>0.0150</b>		<b>0.5878</b>	<b>0.5878</b>		<b>0.5408</b>	<b>0.5408</b>		<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.4062	0.1156	1.0600e-003	0.0271	8.9000e-004	0.0280	7.8000e-003	8.5000e-004	8.6500e-003		113.5277	113.5277	8.8400e-003		113.7488
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
<b>Total</b>	<b>0.0441</b>	<b>0.4264</b>	<b>0.3150</b>	<b>1.6700e-003</b>	<b>0.0928</b>	<b>1.3400e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2700e-003</b>	<b>0.0265</b>		<b>174.6915</b>	<b>174.6915</b>	<b>0.0106</b>		<b>174.9566</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.4062	0.1156	1.0600e-003	0.0271	8.9000e-004	0.0280	7.8000e-003	8.5000e-004	8.6500e-003		113.5277	113.5277	8.8400e-003		113.7488
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
<b>Total</b>	<b>0.0441</b>	<b>0.4264</b>	<b>0.3150</b>	<b>1.6700e-003</b>	<b>0.0928</b>	<b>1.3400e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2700e-003</b>	<b>0.0265</b>		<b>174.6915</b>	<b>174.6915</b>	<b>0.0106</b>		<b>174.9566</b>

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**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8580	7.8878	8.2789	0.0133		0.4121	0.4121		0.3837	0.3837		1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8580</b>	<b>7.8878</b>	<b>8.2789</b>	<b>0.0133</b>		<b>0.4121</b>	<b>0.4121</b>		<b>0.3837</b>	<b>0.3837</b>		<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
<b>Total</b>	<b>0.0706</b>	<b>0.0454</b>	<b>0.4488</b>	<b>1.3800e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>137.6186</b>	<b>137.6186</b>	<b>3.9500e-003</b>		<b>137.7174</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2559	5.4376	7.8889	0.0133		0.3323	0.3323		0.3323	0.3323	0.0000	1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2559</b>	<b>5.4376</b>	<b>7.8889</b>	<b>0.0133</b>		<b>0.3323</b>	<b>0.3323</b>		<b>0.3323</b>	<b>0.3323</b>	<b>0.0000</b>	<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
<b>Total</b>	<b>0.0706</b>	<b>0.0454</b>	<b>0.4488</b>	<b>1.3800e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>137.6186</b>	<b>137.6186</b>	<b>3.9500e-003</b>		<b>137.7174</b>

**4.0 Operational Detail - Mobile**

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Renewable Energy Facility - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

Renewable Energy Facility - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Renewable Energy Facility - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Renewable Energy Facility - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Unmitigated	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003



Renewable Energy Facility - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6000e-004	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>		<b>3.9600e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3361					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>		<b>2.1100e-003</b>

**7.0 Water Detail**

Renewable Energy Facility - San Diego County APCD Air District, Winter

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**7.1 Mitigation Measures Water**

Use Reclaimed Water

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Compressor Station Emergency Generator

Emergency Generator Emission Estimates

Operational Equipment - Project Name	OFFROAD Model Category	Engine Tier	Quantity	Engine Rating (hp)	Engine Rating (kW)	Load Factor	Operation (hr/day)	Operation (day/yr)	Emission Factors								Emissions										
									VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
									(g/bhp-hr)								(lb/day)										
Emergency Generator	Generator Sets	4	1	3,353	2,500	0.74	1.0	50	0.1399	0.5	2.6	0.0055	0.02	0.02	568.299	0.018	0.008069	0.77	2.74	14.22	0.03	0.11	0.11	3,108.63	0.10	0.04	-
								(ton/year)								(MT/yr)											
								0.02	0.07	0.36	0.00	0.00	0.00	0.00	70.50	0.00	0.00	70.86									

Emission Factors

Equipment Type	VOC <sup>1</sup>	NOx <sup>1</sup>	CO <sup>2</sup>	SOx <sup>2</sup>	PM10 <sup>2</sup>	PM2.5 <sup>1</sup>	CO2 <sup>3</sup>	CH4 <sup>3</sup>	N2O <sup>4</sup>
Generator Sets	0.1399	0.5	2.6	0.0055	0.02	0.02	568.299	0.018	0.008069

Notes: <sup>1</sup> EPA Tier 4 for 1200+ hp engines

<sup>2</sup> EPA AP-42, Table 3.4-1, Calculated Value based on Ultra Low Sulfur Diesel

<sup>3</sup> Emission factors from CARB OFFROAD 2011, for generators over 1,000 hp

<sup>4</sup> N2O emission factor based on ratio of CH4 to N2O in diesel fuel from The Climate Registry's 2017 Default Emission Factors

# **APPENDIX B**

## *San Vicente Reservoir Alternative CalEEMod Outputs and Estimated Emissions*



Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	118.50	1000sqft	2.72	118,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	59250	0
tblAreaCoating	Area_Nonresidential_Interior	177750	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	135.00



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tblConstructionPhase	NumDays	10.00	134.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	146.94	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	19.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	50.00	64.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	27,403,125.00	0.00

## 2.0 Emissions Summary

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2020	12-31-2020	0.6593	0.3958
2	1-1-2021	3-31-2021	0.5820	0.3851
3	4-1-2021	6-30-2021	0.4714	0.3938
4	7-1-2021	9-30-2021	0.4700	0.3938
		Highest	0.6593	0.3958

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4629	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1200e-003	2.1200e-003	1.0000e-005	0.0000	2.2600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4629</b>	<b>1.0000e-005</b>	<b>1.0900e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1200e-003</b>	<b>2.1200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.2600e-003</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4629	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4629</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1400e-003</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-003</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.01</b>	<b>0.00</b>	<b>42.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>46.23</b>	<b>46.23</b>	<b>100.00</b>	<b>0.00</b>	<b>46.90</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	3/20/2020	9/24/2020	5	135	
2	Building Construction	Building Construction	9/25/2020	4/1/2021	5	135	Pipeline installation and backfill.
3	Paving	Paving	4/1/2021	10/5/2021	5	134	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	64.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2920	2.9365	1.9703	3.1400e-003		0.1650	0.1650		0.1518	0.1518	0.0000	276.2689	276.2689	0.0894	0.0000	278.5027
<b>Total</b>	<b>0.2920</b>	<b>2.9365</b>	<b>1.9703</b>	<b>3.1400e-003</b>		<b>0.1650</b>	<b>0.1650</b>		<b>0.1518</b>	<b>0.1518</b>	<b>0.0000</b>	<b>276.2689</b>	<b>276.2689</b>	<b>0.0894</b>	<b>0.0000</b>	<b>278.5027</b>

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**3.2 Trenching - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	7.1100e-003	1.6300e-003	2.0000e-005	4.3000e-004	2.0000e-005	4.5000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.9281	1.9281	1.7000e-004	0.0000	1.9325
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0900e-003	7.1200e-003	0.0680	2.2000e-004	0.0219	1.5000e-004	0.0220	5.8100e-003	1.4000e-004	5.9500e-003	0.0000	19.5885	19.5885	5.7000e-004	0.0000	19.6027
<b>Total</b>	<b>9.2900e-003</b>	<b>0.0142</b>	<b>0.0697</b>	<b>2.4000e-004</b>	<b>0.0223</b>	<b>1.7000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.6000e-004</b>	<b>6.0900e-003</b>	<b>0.0000</b>	<b>21.5166</b>	<b>21.5166</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>21.5352</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0770	1.6001	2.1165	3.1400e-003		0.0874	0.0874		0.0874	0.0874	0.0000	276.2686	276.2686	0.0894	0.0000	278.5024
<b>Total</b>	<b>0.0770</b>	<b>1.6001</b>	<b>2.1165</b>	<b>3.1400e-003</b>		<b>0.0874</b>	<b>0.0874</b>		<b>0.0874</b>	<b>0.0874</b>	<b>0.0000</b>	<b>276.2686</b>	<b>276.2686</b>	<b>0.0894</b>	<b>0.0000</b>	<b>278.5024</b>



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**3.2 Trenching - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	7.1100e-003	1.6300e-003	2.0000e-005	4.3000e-004	2.0000e-005	4.5000e-004	1.2000e-004	2.0000e-005	1.4000e-004	0.0000	1.9281	1.9281	1.7000e-004	0.0000	1.9325
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0900e-003	7.1200e-003	0.0680	2.2000e-004	0.0219	1.5000e-004	0.0220	5.8100e-003	1.4000e-004	5.9500e-003	0.0000	19.5885	19.5885	5.7000e-004	0.0000	19.6027
<b>Total</b>	<b>9.2900e-003</b>	<b>0.0142</b>	<b>0.0697</b>	<b>2.4000e-004</b>	<b>0.0223</b>	<b>1.7000e-004</b>	<b>0.0225</b>	<b>5.9300e-003</b>	<b>1.6000e-004</b>	<b>6.0900e-003</b>	<b>0.0000</b>	<b>21.5166</b>	<b>21.5166</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>21.5352</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0565	0.6156	0.3903	7.3000e-004		0.0316	0.0316		0.0291	0.0291	0.0000	63.9849	63.9849	0.0207	0.0000	64.5022
<b>Total</b>	<b>0.0565</b>	<b>0.6156</b>	<b>0.3903</b>	<b>7.3000e-004</b>		<b>0.0316</b>	<b>0.0316</b>		<b>0.0291</b>	<b>0.0291</b>	<b>0.0000</b>	<b>63.9849</b>	<b>63.9849</b>	<b>0.0207</b>	<b>0.0000</b>	<b>64.5022</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	7.6300e-003	2.0200e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.7053	1.7053	1.3000e-004	0.0000	1.7087
Worker	0.0116	9.0900e-003	0.0868	2.8000e-004	0.0279	1.9000e-004	0.0281	7.4200e-003	1.8000e-004	7.6000e-003	0.0000	25.0018	25.0018	7.3000e-004	0.0000	25.0200
<b>Total</b>	<b>0.0119</b>	<b>0.0167</b>	<b>0.0889</b>	<b>3.0000e-004</b>	<b>0.0284</b>	<b>2.3000e-004</b>	<b>0.0286</b>	<b>7.5400e-003</b>	<b>2.1000e-004</b>	<b>7.7600e-003</b>	<b>0.0000</b>	<b>26.7071</b>	<b>26.7071</b>	<b>8.6000e-004</b>	<b>0.0000</b>	<b>26.7287</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0179	0.3735	0.4603	7.3000e-004		0.0200	0.0200		0.0200	0.0200	0.0000	63.9848	63.9848	0.0207	0.0000	64.5021
<b>Total</b>	<b>0.0179</b>	<b>0.3735</b>	<b>0.4603</b>	<b>7.3000e-004</b>		<b>0.0200</b>	<b>0.0200</b>		<b>0.0200</b>	<b>0.0200</b>	<b>0.0000</b>	<b>63.9848</b>	<b>63.9848</b>	<b>0.0207</b>	<b>0.0000</b>	<b>64.5021</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	7.6300e-003	2.0200e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.6000e-004	0.0000	1.7053	1.7053	1.3000e-004	0.0000	1.7087
Worker	0.0116	9.0900e-003	0.0868	2.8000e-004	0.0279	1.9000e-004	0.0281	7.4200e-003	1.8000e-004	7.6000e-003	0.0000	25.0018	25.0018	7.3000e-004	0.0000	25.0200
<b>Total</b>	<b>0.0119</b>	<b>0.0167</b>	<b>0.0889</b>	<b>3.0000e-004</b>	<b>0.0284</b>	<b>2.3000e-004</b>	<b>0.0286</b>	<b>7.5400e-003</b>	<b>2.1000e-004</b>	<b>7.7600e-003</b>	<b>0.0000</b>	<b>26.7071</b>	<b>26.7071</b>	<b>8.6000e-004</b>	<b>0.0000</b>	<b>26.7287</b>

**3.3 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0474	0.5151	0.3517	6.8000e-004		0.0255	0.0255		0.0235	0.0235	0.0000	59.4193	59.4193	0.0192	0.0000	59.8997
<b>Total</b>	<b>0.0474</b>	<b>0.5151</b>	<b>0.3517</b>	<b>6.8000e-004</b>		<b>0.0255</b>	<b>0.0255</b>		<b>0.0235</b>	<b>0.0235</b>	<b>0.0000</b>	<b>59.4193</b>	<b>59.4193</b>	<b>0.0192</b>	<b>0.0000</b>	<b>59.8997</b>

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**3.3 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	6.4100e-003	1.7000e-003	2.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.5689	1.5689	1.2000e-004	0.0000	1.5719
Worker	0.0102	7.6700e-003	0.0754	2.5000e-004	0.0259	1.8000e-004	0.0261	6.8900e-003	1.6000e-004	7.0500e-003	0.0000	22.4355	22.4355	6.2000e-004	0.0000	22.4511
<b>Total</b>	<b>0.0104</b>	<b>0.0141</b>	<b>0.0771</b>	<b>2.7000e-004</b>	<b>0.0263</b>	<b>1.9000e-004</b>	<b>0.0265</b>	<b>7.0000e-003</b>	<b>1.7000e-004</b>	<b>7.1800e-003</b>	<b>0.0000</b>	<b>24.0044</b>	<b>24.0044</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>24.0230</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0166	0.3468	0.4274	6.8000e-004		0.0186	0.0186		0.0186	0.0186	0.0000	59.4192	59.4192	0.0192	0.0000	59.8996
<b>Total</b>	<b>0.0166</b>	<b>0.3468</b>	<b>0.4274</b>	<b>6.8000e-004</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>	<b>0.0000</b>	<b>59.4192</b>	<b>59.4192</b>	<b>0.0192</b>	<b>0.0000</b>	<b>59.8996</b>

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**3.3 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9000e-004	6.4100e-003	1.7000e-003	2.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.5689	1.5689	1.2000e-004	0.0000	1.5719
Worker	0.0102	7.6700e-003	0.0754	2.5000e-004	0.0259	1.8000e-004	0.0261	6.8900e-003	1.6000e-004	7.0500e-003	0.0000	22.4355	22.4355	6.2000e-004	0.0000	22.4511
<b>Total</b>	<b>0.0104</b>	<b>0.0141</b>	<b>0.0771</b>	<b>2.7000e-004</b>	<b>0.0263</b>	<b>1.9000e-004</b>	<b>0.0265</b>	<b>7.0000e-003</b>	<b>1.7000e-004</b>	<b>7.1800e-003</b>	<b>0.0000</b>	<b>24.0044</b>	<b>24.0044</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>24.0230</b>

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0841	0.8656	0.9818	1.5300e-003		0.0454	0.0454		0.0418	0.0418	0.0000	134.1573	134.1573	0.0434	0.0000	135.2421
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0841</b>	<b>0.8656</b>	<b>0.9818</b>	<b>1.5300e-003</b>		<b>0.0454</b>	<b>0.0454</b>		<b>0.0418</b>	<b>0.0418</b>	<b>0.0000</b>	<b>134.1573</b>	<b>134.1573</b>	<b>0.0434</b>	<b>0.0000</b>	<b>135.2421</b>

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**3.4 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2500e-003	3.9600e-003	0.0389	1.3000e-004	0.0134	9.0000e-005	0.0135	3.5500e-003	8.0000e-005	3.6300e-003	0.0000	11.5629	11.5629	3.2000e-004	0.0000	11.5709
<b>Total</b>	<b>5.2500e-003</b>	<b>3.9600e-003</b>	<b>0.0389</b>	<b>1.3000e-004</b>	<b>0.0134</b>	<b>9.0000e-005</b>	<b>0.0135</b>	<b>3.5500e-003</b>	<b>8.0000e-005</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>11.5629</b>	<b>11.5629</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>11.5709</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0376	0.7568	1.1588	1.5300e-003		0.0408	0.0408		0.0408	0.0408	0.0000	134.1572	134.1572	0.0434	0.0000	135.2419
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0376</b>	<b>0.7568</b>	<b>1.1588</b>	<b>1.5300e-003</b>		<b>0.0408</b>	<b>0.0408</b>		<b>0.0408</b>	<b>0.0408</b>	<b>0.0000</b>	<b>134.1572</b>	<b>134.1572</b>	<b>0.0434</b>	<b>0.0000</b>	<b>135.2419</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**3.4 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2500e-003	3.9600e-003	0.0389	1.3000e-004	0.0134	9.0000e-005	0.0135	3.5500e-003	8.0000e-005	3.6300e-003	0.0000	11.5629	11.5629	3.2000e-004	0.0000	11.5709
<b>Total</b>	<b>5.2500e-003</b>	<b>3.9600e-003</b>	<b>0.0389</b>	<b>1.3000e-004</b>	<b>0.0134</b>	<b>9.0000e-005</b>	<b>0.0135</b>	<b>3.5500e-003</b>	<b>8.0000e-005</b>	<b>3.6300e-003</b>	<b>0.0000</b>	<b>11.5629</b>	<b>11.5629</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>11.5709</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N





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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4629	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2000e-003
Unmitigated	0.4629	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1200e-003	2.1200e-003	1.0000e-005	0.0000	2.2600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4628					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0900e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1200e-003	2.1200e-003	1.0000e-005	0.0000	2.2600e-003
<b>Total</b>	<b>0.4629</b>	<b>1.0000e-005</b>	<b>1.0900e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1200e-003</b>	<b>2.1200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.2600e-003</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4628					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	1.0000e-005	6.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1400e-003	1.1400e-003	0.0000	0.0000	1.2000e-003
<b>Total</b>	<b>0.4628</b>	<b>1.0000e-005</b>	<b>6.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1400e-003</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Morena Pipeline-Open Trench - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**Morena Pipeline-Open Trench  
San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	118.50	1000sqft	2.72	118,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	59250	0
tblAreaCoating	Area_Nonresidential_Interior	177750	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	135.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblConstructionPhase	NumDays	10.00	134.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	146.94	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	19.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	50.00	64.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	27,403,125.00	0.00

**2.0 Emissions Summary**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0277</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0147</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	45.45	42.06	0.00	0.00	50.00	50.00	0.00	50.00	50.00	0.00	46.09	46.09	57.14	0.00	46.85

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	3/20/2020	9/24/2020	5	135	
2	Building Construction	Building Construction	9/25/2020	4/1/2021	5	135	Pipeline installation and backfill.
3	Paving	Paving	4/1/2021	10/5/2021	5	134	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	64.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3264	43.5035	29.1902	0.0466		2.4447	2.4447		2.2491	2.2491		4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>4.3264</b>	<b>43.5035</b>	<b>29.1902</b>	<b>0.0466</b>		<b>2.4447</b>	<b>2.4447</b>		<b>2.2491</b>	<b>2.2491</b>		<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9300e-003	0.1033	0.0235	2.9000e-004	6.4700e-003	3.3000e-004	6.8000e-003	1.7700e-003	3.2000e-004	2.0900e-003		31.7158	31.7158	2.7900e-003		31.7857
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.1352</b>	<b>0.1988</b>	<b>1.1077</b>	<b>3.6800e-003</b>	<b>0.3386</b>	<b>2.5700e-003</b>	<b>0.3411</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>369.2262</b>	<b>369.2262</b>	<b>0.0126</b>		<b>369.5415</b>

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**3.2 Trenching - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9300e-003	0.1033	0.0235	2.9000e-004	6.4700e-003	3.3000e-004	6.8000e-003	1.7700e-003	3.2000e-004	2.0900e-003		31.7158	31.7158	2.7900e-003		31.7857
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1322	0.0955	1.0843	3.3900e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		337.5104	337.5104	9.8200e-003		337.7559
<b>Total</b>	<b>0.1352</b>	<b>0.1988</b>	<b>1.1077</b>	<b>3.6800e-003</b>	<b>0.3386</b>	<b>2.5700e-003</b>	<b>0.3411</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>369.2262</b>	<b>369.2262</b>	<b>0.0126</b>		<b>369.5415</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6138	17.5884	11.1507	0.0208		0.9041	0.9041		0.8318	0.8318		2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>1.6138</b>	<b>17.5884</b>	<b>11.1507</b>	<b>0.0208</b>		<b>0.9041</b>	<b>0.9041</b>		<b>0.8318</b>	<b>0.8318</b>		<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.3255	0.2351	2.6690	8.3400e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		830.7949	830.7949	0.0242		831.3991
<b>Total</b>	<b>0.3325</b>	<b>0.4509</b>	<b>2.7237</b>	<b>8.8500e-003</b>	<b>0.8297</b>	<b>6.5200e-003</b>	<b>0.8362</b>	<b>0.2203</b>	<b>6.0400e-003</b>	<b>0.2264</b>		<b>885.1383</b>	<b>885.1383</b>	<b>0.0283</b>		<b>885.8457</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.3255	0.2351	2.6690	8.3400e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		830.7949	830.7949	0.0242		831.3991
<b>Total</b>	<b>0.3325</b>	<b>0.4509</b>	<b>2.7237</b>	<b>8.8500e-003</b>	<b>0.8297</b>	<b>6.5200e-003</b>	<b>0.8362</b>	<b>0.2203</b>	<b>6.0400e-003</b>	<b>0.2264</b>		<b>885.1383</b>	<b>885.1383</b>	<b>0.0283</b>		<b>885.8457</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4590	15.8485	10.8219	0.0208		0.7847	0.7847		0.7219	0.7219		2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>1.4590</b>	<b>15.8485</b>	<b>10.8219</b>	<b>0.0208</b>		<b>0.7847</b>	<b>0.7847</b>		<b>0.7219</b>	<b>0.7219</b>		<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.3073	0.2139	2.5009	8.0500e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		802.8712	802.8712	0.0223		803.4298
<b>Total</b>	<b>0.3131</b>	<b>0.4095</b>	<b>2.5503</b>	<b>8.5500e-003</b>	<b>0.8297</b>	<b>5.8200e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3700e-003</b>	<b>0.2257</b>		<b>856.7175</b>	<b>856.7175</b>	<b>0.0263</b>		<b>857.3750</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.7200e-003	0.1956	0.0494	5.0000e-004	0.0123	3.9000e-004	0.0126	3.5300e-003	3.7000e-004	3.9000e-003		53.8463	53.8463	3.9600e-003		53.9452
Worker	0.3073	0.2139	2.5009	8.0500e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		802.8712	802.8712	0.0223		803.4298
<b>Total</b>	<b>0.3131</b>	<b>0.4095</b>	<b>2.5503</b>	<b>8.5500e-003</b>	<b>0.8297</b>	<b>5.8200e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3700e-003</b>	<b>0.2257</b>		<b>856.7175</b>	<b>856.7175</b>	<b>0.0263</b>		<b>857.3750</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

**4.0 Operational Detail - Mobile**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Unmitigated	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277

Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1300e-003	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>		<b>0.0277</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>		<b>0.0147</b>

**7.0 Water Detail**

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Summer

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**



Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**Morena Pipeline-Open Trench**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	118.50	1000sqft	2.72	118,500.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.  
 Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	59250	0
tblAreaCoating	Area_Nonresidential_Interior	177750	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorV alue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorV alue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	135.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblConstructionPhase	NumDays	10.00	134.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	146.94	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	VendorTripNumber	19.00	2.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	50.00	64.00

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	27,403,125.00	0.00

**2.0 Emissions Summary**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0277</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0147</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	45.45	42.06	0.00	0.00	50.00	50.00	0.00	50.00	50.00	0.00	46.09	46.09	57.14	0.00	46.85

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	3/20/2020	9/24/2020	5	135	
2	Building Construction	Building Construction	9/25/2020	4/1/2021	5	135	Pipeline installation and backfill.
3	Paving	Paving	4/1/2021	10/5/2021	5	134	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment



Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	50.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	64.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3264	43.5035	29.1902	0.0466		2.4447	2.4447		2.2491	2.2491		4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>4.3264</b>	<b>43.5035</b>	<b>29.1902</b>	<b>0.0466</b>		<b>2.4447</b>	<b>2.4447</b>		<b>2.2491</b>	<b>2.2491</b>		<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0100e-003	0.1043	0.0250	2.8000e-004	6.4700e-003	3.4000e-004	6.8100e-003	1.7700e-003	3.2000e-004	2.1000e-003		31.1717	31.1717	2.8900e-003		31.2439
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.1564</b>	<b>0.2115</b>	<b>1.0263</b>	<b>3.4600e-003</b>	<b>0.3386</b>	<b>2.5800e-003</b>	<b>0.3412</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>347.8751</b>	<b>347.8751</b>	<b>0.0121</b>		<b>348.1775</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,511.6201	4,511.6201	1.4592		4,548.0988
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,511.6201</b>	<b>4,511.6201</b>	<b>1.4592</b>		<b>4,548.0988</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0100e-003	0.1043	0.0250	2.8000e-004	6.4700e-003	3.4000e-004	6.8100e-003	1.7700e-003	3.2000e-004	2.1000e-003		31.1717	31.1717	2.8900e-003		31.2439
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1533	0.1072	1.0013	3.1800e-003	0.3321	2.2400e-003	0.3343	0.0881	2.0700e-003	0.0901		316.7034	316.7034	9.2100e-003		316.9335
<b>Total</b>	<b>0.1564</b>	<b>0.2115</b>	<b>1.0263</b>	<b>3.4600e-003</b>	<b>0.3386</b>	<b>2.5800e-003</b>	<b>0.3412</b>	<b>0.0898</b>	<b>2.3900e-003</b>	<b>0.0922</b>		<b>347.8751</b>	<b>347.8751</b>	<b>0.0121</b>		<b>348.1775</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6138	17.5884	11.1507	0.0208		0.9041	0.9041		0.8318	0.8318		2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>1.6138</b>	<b>17.5884</b>	<b>11.1507</b>	<b>0.0208</b>		<b>0.9041</b>	<b>0.9041</b>		<b>0.8318</b>	<b>0.8318</b>		<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.3775	0.2639	2.4648	7.8200e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		779.5776	779.5776	0.0227		780.1441
<b>Total</b>	<b>0.3848</b>	<b>0.4791</b>	<b>2.5258</b>	<b>8.3100e-003</b>	<b>0.8297</b>	<b>6.5500e-003</b>	<b>0.8363</b>	<b>0.2203</b>	<b>6.0600e-003</b>	<b>0.2264</b>		<b>832.4054</b>	<b>832.4054</b>	<b>0.0271</b>		<b>833.0819</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.1779	2,015.1779	0.6518		2,031.4717
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.1779</b>	<b>2,015.1779</b>	<b>0.6518</b>		<b>2,031.4717</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.3775	0.2639	2.4648	7.8200e-003	0.8175	5.5200e-003	0.8230	0.2168	5.0800e-003	0.2219		779.5776	779.5776	0.0227		780.1441
<b>Total</b>	<b>0.3848</b>	<b>0.4791</b>	<b>2.5258</b>	<b>8.3100e-003</b>	<b>0.8297</b>	<b>6.5500e-003</b>	<b>0.8363</b>	<b>0.2203</b>	<b>6.0600e-003</b>	<b>0.2264</b>		<b>832.4054</b>	<b>832.4054</b>	<b>0.0271</b>		<b>833.0819</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4590	15.8485	10.8219	0.0208		0.7847	0.7847		0.7219	0.7219		2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>1.4590</b>	<b>15.8485</b>	<b>10.8219</b>	<b>0.0208</b>		<b>0.7847</b>	<b>0.7847</b>		<b>0.7219</b>	<b>0.7219</b>		<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.3569	0.2400	2.3036	7.5600e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		753.3624	753.3624	0.0209		753.8854
<b>Total</b>	<b>0.3630</b>	<b>0.4348</b>	<b>2.3589</b>	<b>8.0500e-003</b>	<b>0.8297</b>	<b>5.8400e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3900e-003</b>	<b>0.2257</b>		<b>805.7022</b>	<b>805.7022</b>	<b>0.0251</b>		<b>806.3306</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5108	10.6713	13.1511	0.0208		0.5716	0.5716		0.5716	0.5716	0.0000	2,015.3393	2,015.3393	0.6518		2,031.6344
<b>Total</b>	<b>0.5108</b>	<b>10.6713</b>	<b>13.1511</b>	<b>0.0208</b>		<b>0.5716</b>	<b>0.5716</b>		<b>0.5716</b>	<b>0.5716</b>	<b>0.0000</b>	<b>2,015.3393</b>	<b>2,015.3393</b>	<b>0.6518</b>		<b>2,031.6344</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.3569	0.2400	2.3036	7.5600e-003	0.8175	5.4300e-003	0.8229	0.2168	5.0000e-003	0.2218		753.3624	753.3624	0.0209		753.8854
<b>Total</b>	<b>0.3630</b>	<b>0.4348</b>	<b>2.3589</b>	<b>8.0500e-003</b>	<b>0.8297</b>	<b>5.8400e-003</b>	<b>0.8356</b>	<b>0.2203</b>	<b>5.3900e-003</b>	<b>0.2257</b>		<b>805.7022</b>	<b>805.7022</b>	<b>0.0251</b>		<b>806.3306</b>

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>



Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

**4.0 Operational Detail - Mobile**

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Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5364	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
Unmitigated	2.5370	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277

Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.1300e-003	1.1000e-004	0.0122	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0259	0.0259	7.0000e-005		0.0277
<b>Total</b>	<b>2.5370</b>	<b>1.1000e-004</b>	<b>0.0122</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>0.0259</b>	<b>0.0259</b>	<b>7.0000e-005</b>		<b>0.0277</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5359					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	6.0000e-005	7.0400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0140	0.0140	3.0000e-005		0.0147
<b>Total</b>	<b>2.5364</b>	<b>6.0000e-005</b>	<b>7.0400e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>0.0140</b>	<b>0.0140</b>	<b>3.0000e-005</b>		<b>0.0147</b>

**7.0 Water Detail**

## Morena Pipeline-Open Trench - San Diego County APCD Air District, Winter

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Annual

**Landfill Gas Pipeline-Trenchless**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.



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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

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Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	NumDays	1.00	120.00
tblConstructionPhase	NumDays	1.00	120.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

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tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	21.00	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0135	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0135</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0125	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0125</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.49	0.00	33.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	57.14

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	3/2/2020	3/27/2020	5	20	
2	Portal Excavation	Site Preparation	3/30/2020	9/11/2020	5	120	
3	Site Restoration	Site Preparation	9/14/2020	2/26/2021	5	120	
4	Tunnel Excavation	Trenching	3/1/2021	10/5/2021	5	157	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area



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**3.2 Site Preparation at Portal Sites - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0168	0.2018	0.1155	2.5000e-004		7.9400e-003	7.9400e-003		7.3000e-003	7.3000e-003	0.0000	21.8677	21.8677	7.0700e-003	0.0000	22.0445
<b>Total</b>	<b>0.0168</b>	<b>0.2018</b>	<b>0.1155</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>7.9400e-003</b>	<b>7.9400e-003</b>	<b>0.0000</b>	<b>7.3000e-003</b>	<b>7.3000e-003</b>	<b>0.0000</b>	<b>21.8677</b>	<b>21.8677</b>	<b>7.0700e-003</b>	<b>0.0000</b>	<b>22.0445</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.1000e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0000e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8929	0.8929	3.0000e-005	0.0000	0.8936
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.1000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8929</b>	<b>0.8929</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8936</b>

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**3.2 Site Preparation at Portal Sites - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.7800e-003	0.1199	0.1395	2.5000e-004		5.1100e-003	5.1100e-003		5.1400e-003	5.1400e-003	0.0000	21.8677	21.8677	7.0700e-003	0.0000	22.0445
<b>Total</b>	<b>5.7800e-003</b>	<b>0.1199</b>	<b>0.1395</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>5.1100e-003</b>	<b>5.1100e-003</b>	<b>0.0000</b>	<b>5.1400e-003</b>	<b>5.1400e-003</b>	<b>0.0000</b>	<b>21.8677</b>	<b>21.8677</b>	<b>7.0700e-003</b>	<b>0.0000</b>	<b>22.0445</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.1000e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0000e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8929	0.8929	3.0000e-005	0.0000	0.8936
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.1000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>1.0000e-005</b>	<b>1.0000e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.8929</b>	<b>0.8929</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8936</b>

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**3.3 Portal Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2590	0.0000	0.2590	0.1423	0.0000	0.1423	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1504	1.4067	1.0001	1.6300e-003		0.0798	0.0798		0.0746	0.0746	0.0000	142.5861	142.5861	0.0371	0.0000	143.5134
<b>Total</b>	<b>0.1504</b>	<b>1.4067</b>	<b>1.0001</b>	<b>1.6300e-003</b>	<b>0.2590</b>	<b>0.0798</b>	<b>0.3388</b>	<b>0.1423</b>	<b>0.0746</b>	<b>0.2169</b>	<b>0.0000</b>	<b>142.5861</b>	<b>142.5861</b>	<b>0.0371</b>	<b>0.0000</b>	<b>143.5134</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9700e-003	3.8900e-003	0.0372	1.2000e-004	0.0120	8.0000e-005	0.0121	3.1800e-003	8.0000e-005	3.2600e-003	0.0000	10.7151	10.7151	3.1000e-004	0.0000	10.7229
<b>Total</b>	<b>4.9700e-003</b>	<b>3.8900e-003</b>	<b>0.0372</b>	<b>1.2000e-004</b>	<b>0.0120</b>	<b>8.0000e-005</b>	<b>0.0121</b>	<b>3.1800e-003</b>	<b>8.0000e-005</b>	<b>3.2600e-003</b>	<b>0.0000</b>	<b>10.7151</b>	<b>10.7151</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>10.7229</b>

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**3.3 Portal Excavation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1165	0.0000	0.1165	0.0641	0.0000	0.0641	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0361	0.7938	1.0607	1.6300e-003		0.0448	0.0448		0.0450	0.0450	0.0000	142.5860	142.5860	0.0371	0.0000	143.5132
<b>Total</b>	<b>0.0361</b>	<b>0.7938</b>	<b>1.0607</b>	<b>1.6300e-003</b>	<b>0.1165</b>	<b>0.0448</b>	<b>0.1614</b>	<b>0.0641</b>	<b>0.0450</b>	<b>0.1090</b>	<b>0.0000</b>	<b>142.5860</b>	<b>142.5860</b>	<b>0.0371</b>	<b>0.0000</b>	<b>143.5132</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9700e-003	3.8900e-003	0.0372	1.2000e-004	0.0120	8.0000e-005	0.0121	3.1800e-003	8.0000e-005	3.2600e-003	0.0000	10.7151	10.7151	3.1000e-004	0.0000	10.7229
<b>Total</b>	<b>4.9700e-003</b>	<b>3.8900e-003</b>	<b>0.0372</b>	<b>1.2000e-004</b>	<b>0.0120</b>	<b>8.0000e-005</b>	<b>0.0121</b>	<b>3.1800e-003</b>	<b>8.0000e-005</b>	<b>3.2600e-003</b>	<b>0.0000</b>	<b>10.7151</b>	<b>10.7151</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>10.7229</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2800e-003	0.0832	0.0901	1.2000e-004		5.2600e-003	5.2600e-003		4.8400e-003	4.8400e-003	0.0000	10.7777	10.7777	3.4900e-003	0.0000	10.8648
<b>Total</b>	<b>8.2800e-003</b>	<b>0.0832</b>	<b>0.0901</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>5.2600e-003</b>	<b>5.2600e-003</b>	<b>0.0000</b>	<b>4.8400e-003</b>	<b>4.8400e-003</b>	<b>0.0000</b>	<b>10.7777</b>	<b>10.7777</b>	<b>3.4900e-003</b>	<b>0.0000</b>	<b>10.8648</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.4000e-004	6.1300e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7635	1.7635	5.0000e-005	0.0000	1.7648
<b>Total</b>	<b>8.2000e-004</b>	<b>6.4000e-004</b>	<b>6.1300e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>1.9800e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7635</b>	<b>1.7635</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7648</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6800e-003	0.0649	0.0931	1.2000e-004		4.6900e-003	4.6900e-003		4.7900e-003	4.7900e-003	0.0000	10.7777	10.7777	3.4900e-003	0.0000	10.8648
<b>Total</b>	<b>1.6800e-003</b>	<b>0.0649</b>	<b>0.0931</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>4.7900e-003</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>10.7777</b>	<b>10.7777</b>	<b>3.4900e-003</b>	<b>0.0000</b>	<b>10.8648</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.4000e-004	6.1300e-003	2.0000e-005	1.9700e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7635	1.7635	5.0000e-005	0.0000	1.7648
<b>Total</b>	<b>8.2000e-004</b>	<b>6.4000e-004</b>	<b>6.1300e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>1.0000e-005</b>	<b>1.9800e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7635</b>	<b>1.7635</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7648</b>

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**3.4 Site Restoration - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8400e-003	0.0389	0.0463	6.0000e-005		2.2900e-003	2.2900e-003		2.1100e-003	2.1100e-003	0.0000	5.5959	5.5959	1.8100e-003	0.0000	5.6412
<b>Total</b>	<b>3.8400e-003</b>	<b>0.0389</b>	<b>0.0463</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.2900e-003</b>	<b>2.2900e-003</b>	<b>0.0000</b>	<b>2.1100e-003</b>	<b>2.1100e-003</b>	<b>0.0000</b>	<b>5.5959</b>	<b>5.5959</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>5.6412</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	3.0000e-004	2.9700e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8845	0.8845	2.0000e-005	0.0000	0.8851
<b>Total</b>	<b>4.0000e-004</b>	<b>3.0000e-004</b>	<b>2.9700e-003</b>	<b>1.0000e-005</b>	<b>1.0200e-003</b>	<b>1.0000e-005</b>	<b>1.0300e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>0.8845</b>	<b>0.8845</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8851</b>

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**3.4 Site Restoration - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9000e-004	0.0347	0.0484	6.0000e-005		2.5400e-003	2.5400e-003		2.5900e-003	2.5900e-003	0.0000	5.5959	5.5959	1.8100e-003	0.0000	5.6412
<b>Total</b>	<b>9.9000e-004</b>	<b>0.0347</b>	<b>0.0484</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>2.5400e-003</b>	<b>2.5400e-003</b>	<b>0.0000</b>	<b>2.5900e-003</b>	<b>2.5900e-003</b>	<b>0.0000</b>	<b>5.5959</b>	<b>5.5959</b>	<b>1.8100e-003</b>	<b>0.0000</b>	<b>5.6412</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	3.0000e-004	2.9700e-003	1.0000e-005	1.0200e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8845	0.8845	2.0000e-005	0.0000	0.8851
<b>Total</b>	<b>4.0000e-004</b>	<b>3.0000e-004</b>	<b>2.9700e-003</b>	<b>1.0000e-005</b>	<b>1.0200e-003</b>	<b>1.0000e-005</b>	<b>1.0300e-003</b>	<b>2.7000e-004</b>	<b>1.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>0.8845</b>	<b>0.8845</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8851</b>



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**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1851	1.7292	1.2965	2.1300e-003		0.0951	0.0951		0.0888	0.0888	0.0000	186.5733	186.5733	0.0483	0.0000	187.7804
<b>Total</b>	<b>0.1851</b>	<b>1.7292</b>	<b>1.2965</b>	<b>2.1300e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0888</b>	<b>0.0888</b>	<b>0.0000</b>	<b>186.5733</b>	<b>186.5733</b>	<b>0.0483</b>	<b>0.0000</b>	<b>187.7804</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0155	4.1100e-003	4.0000e-005	9.4000e-004	3.0000e-005	9.7000e-004	2.7000e-004	3.0000e-005	3.0000e-004	0.0000	3.7896	3.7896	2.9000e-004	0.0000	3.7968
Worker	9.9900e-003	7.5300e-003	0.0740	2.4000e-004	0.0255	1.7000e-004	0.0256	6.7600e-003	1.6000e-004	6.9200e-003	0.0000	22.0148	22.0148	6.1000e-004	0.0000	22.0301
<b>Total</b>	<b>0.0105</b>	<b>0.0230</b>	<b>0.0781</b>	<b>2.8000e-004</b>	<b>0.0264</b>	<b>2.0000e-004</b>	<b>0.0266</b>	<b>7.0300e-003</b>	<b>1.9000e-004</b>	<b>7.2200e-003</b>	<b>0.0000</b>	<b>25.8044</b>	<b>25.8044</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>25.8269</b>

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**3.5 Tunnel Excavation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0477	1.0426	1.3881	2.1300e-003		0.0591	0.0591		0.0593	0.0593	0.0000	186.5731	186.5731	0.0483	0.0000	187.7802
<b>Total</b>	<b>0.0477</b>	<b>1.0426</b>	<b>1.3881</b>	<b>2.1300e-003</b>		<b>0.0591</b>	<b>0.0591</b>		<b>0.0593</b>	<b>0.0593</b>	<b>0.0000</b>	<b>186.5731</b>	<b>186.5731</b>	<b>0.0483</b>	<b>0.0000</b>	<b>187.7802</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6000e-004	0.0155	4.1100e-003	4.0000e-005	9.4000e-004	3.0000e-005	9.7000e-004	2.7000e-004	3.0000e-005	3.0000e-004	0.0000	3.7896	3.7896	2.9000e-004	0.0000	3.7968
Worker	9.9900e-003	7.5300e-003	0.0740	2.4000e-004	0.0255	1.7000e-004	0.0256	6.7600e-003	1.6000e-004	6.9200e-003	0.0000	22.0148	22.0148	6.1000e-004	0.0000	22.0301
<b>Total</b>	<b>0.0105</b>	<b>0.0230</b>	<b>0.0781</b>	<b>2.8000e-004</b>	<b>0.0264</b>	<b>2.0000e-004</b>	<b>0.0266</b>	<b>7.0300e-003</b>	<b>1.9000e-004</b>	<b>7.2200e-003</b>	<b>0.0000</b>	<b>25.8044</b>	<b>25.8044</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>25.8269</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193





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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0125	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0135	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0135					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.0000e-005	6.0000e-005	0.0000	0.0000	7.0000e-005
<b>Total</b>	<b>0.0135</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0125					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-005	3.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.0125</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**



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**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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tblProjectCharacteristics

ProjectName	Location	Sc	EMFAC_IC	WindSpeed	Precipitation	ClimateZone	Urbanization	Operational	UtilityCompany
Landfill Ga	AD		SDAPCD	2.6	40	13 Rural		2021	San Diego

tblProjectCharacteristics

CO2Intens	CH4Intensi	N2OIntens	TotalPopul	TotalLotAc	UsingHisto	ConstructionPhaseStartDate
720.49	0.029	0.006	0	0.08	0	2020/10/01

tblPollutants

PollutantSeq	PollutantFid	PollutantName
1		Reactive OROG
1		Nitrogen O NOX
1		Carbon Mo CO
1		Sulfur Diox SO2
1		Particulate PM10
1		Particulate PM2_5
1		Fugitive PM PM10_FUG
1		Fugitive PM PM25_FUG
1		Biogenic C CO2_BIO
1		Non-Bioge CO2_NBIO
1		Carbon Dic CO2
1		Methane (C CH4
1		Nitrous Oxi N2O
1		CO2 Equiv CO2E

tblLandUse

LandUseTy	LandUseSi	LandUseUi	LandUseSi	LotAcreage	LandUseSr	Population	BuildingSp	GreenSpace
Industrial	General Lic	3.45	1000sqft	0.08	3452.97	0	3452.97	0



tblLandUse

RecSwimmingAreaAllowEdit  
0

tblConstructionPhase

PhaseNum	PhaseNam	PhaseType	PhaseStart	PhaseEnd	NumDaysV	NumDays	PhaseDescription
1	Site Prepar	Site Prepar	2020/03/02	2020/03/27	5	20	
2	Portal Excav	Site Prepar	2020/03/30	2020/09/11	5	120	
3	Site Restor	Site Prepar	2020/09/14	2021/02/26	5	120	
4	Tunnel Exc	Trenching	2021/03/01	2021/10/05	5	157	

tblOffRoadEquipment

PhaseNam	OffRoadEq	OffRoadEq	UsageHou	HorsePow	LoadFactor
Site Prepar	Graders	1	8	187	0.41
Site Prepar	Scrapers	1	8	367	0.48
Site Prepar	Tractors/Lc	1	8	97	0.37
Portal Exc	Crushing/P	1	8	85	0.78
Portal Exc	Excavators	1	8	158	0.38
Portal Exc	Rubber Tir	1	8	247	0.4
Portal Exc	Tractors/Lc	1	8	97	0.37
Portal Exc	Trenchers	1	8	78	0.5
Site Restor	Tractors/Lc	1	8	97	0.37
Tunnel Exc	Crushing/P	1	8	85	0.78
Tunnel Exc	Excavators	1	8	158	0.38
Tunnel Exc	Rubber Tir	1	8	247	0.4
Tunnel Exc	Tractors/Lc	1	8	97	0.37
Tunnel Exc	Trenchers	1	8	78	0.5

tblTripsAndVMT

PhaseNam	WorkerTrip	VendorTrip	HaulingTriç	WorkerTrip	VendorTrip	HaulingTriç	WorkerVeh	VendorVeh
Site Prepar	8	0	0	16.8	6.6	20	LD_Mix	HDT_Mix
Portal Exca	16	0	0	16.8	6.6	20	LD_Mix	HDT_Mix
Site Restor	4	0	0	16.8	6.6	20	LD_Mix	HDT_Mix
Tunnel Exc	26	2	0	16.8	6.6	20	LD_Mix	HDT_Mix

HaulingVehicleClass

HHDT

HHDT

HHDT

HHDT

## tblOnRoadDust

PhaseNam	WorkerPer	VendorPer	HaulingPer	RoadSiltLo	MaterialSilt	MaterialMo	AverageVe	MeanVehic
Site Prepar	100	100	100	0.1	8.5	0.5	2.4	40
Portal Exca	100	100	100	0.1	8.5	0.5	2.4	40
Site Restor	100	100	100	0.1	8.5	0.5	2.4	40
Tunnel Exc	100	100	100	0.1	8.5	0.5	2.4	40

tblOnRoadDust

leSpeed

PhaseNam Demolition: DemolitionUnitAmount



tblGrading

PhaseNam	MaterialIm	MaterialEx	GradingSiz	ImportExp	MeanVehic	AcresOfGr	MaterialMo	MaterialMo
Site Prepar	0	0	Cubic Yard	0	7.1	0	7.9	12
Portal Exca	0	0		0	7.1	0	7.9	12
Site Restor	0	0		0	7.1		7.9	12

Material	Silt Content
	6.9
	6.9
	6.9

tblArchitecturalCoating

PhaseNam Architectur: Architectur: EF\_Reside ConstArea, EF\_Reside ConstArea, EF\_Nonres ConstArea,

tblArchitecturalCoating

EF\_Nonres ConstArea\_EF\_Parking ConstArea\_Parking

tblPaving

ParkingLotAcreage

tblVehicleTrips

VehicleTrip	VehicleTrip	WD_TR	ST_TR	SU_TR	HW_TL	HS_TL	HO_TL	CC_TL	
General Liç	1000sqft	0	0	0	0	0	0	0	6.6

tblVehicleTrips

CW_TL	CNW_TL	PR_TP	DV_TP	PB_TP	HW_TTP	HS_TTP	HO_TTP	CC_TTP
14.7	6.6	92	5	3	0	0	0	28

tblVehicleTrips

CW_TTP	CNW_TTP
59	13



## tblVehicleEF

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD
A	FleetMix	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.01594
A	CH4_IDLE	0	0	0	0	0.005189	0.003792	0.01669
A	CH4_RUNI	0.007064	0.01258	0.006205	0.011082	0.020369	0.008775	0.006283
A	CH4_STRE	0.008916	0.017469	0.007506	0.016259	0.018927	0.008191	0.056693
A	CO_IDLE	0	0	0	0	0.142709	0.124765	0.361548
A	CO_RUNE	0.64148	1.394338	0.731488	1.180012	1.204059	0.626052	0.446093
A	CO_STRE	1.613343	3.35832	1.587141	2.858958	2.506544	1.224843	6.596747
A	CO2_NBIC	0	0	0	0	9.281637	14.18079	146.0958
A	CO2_NBIC	269.9395	340.0823	380.3914	506.2837	687.4357	720.4456	1207.329
A	CO2_NBIC	58.49629	73.28469	82.33237	108.3367	29.29151	24.86012	57.75631
A	NOX_IDLE	0	0	0	0	0.091325	0.111512	0.622795
A	NOX_RUN	0.070233	0.145319	0.079935	0.140968	1.738553	1.068941	1.587496
A	NOX_STRI	0.090677	0.200214	0.131865	0.261006	0.933754	0.512744	11.05542
A	PM10_IDLI	0	0	0	0	0.001025	0.001299	0.000764
A	PM10_PMI	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034
A	PM10_PMI	0.008	0.008	0.008	0.008	0.010238	0.01073	0.012
A	PM10_RUNI	0.001905	0.002881	0.001808	0.001946	0.01955	0.015876	0.006721
A	PM10_STF	0.002286	0.003517	0.002231	0.002417	0.000914	0.00042	0.000934
A	PM25_IDLI	0	0	0	0	0.000981	0.001243	0.000731
A	PM25_PMI	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586
A	PM25_PMI	0.002	0.002	0.002	0.002	0.002559	0.002683	0.003
A	PM25_RUNI	0.001757	0.002654	0.001663	0.001795	0.018661	0.015167	0.006424
A	PM25_STF	0.002102	0.003234	0.002051	0.002225	0.000841	0.000386	0.000859
A	ROG_DIUF	0.028188	0.11304	0.039519	0.056173	0.002307	0.000812	0.000966
A	ROG_HTS	0.090086	0.304996	0.115811	0.165891	0.09354	0.033427	0.044108
A	ROG_IDLE	0	0	0	0	0.016555	0.014243	0.027049
A	ROG_RES	0.033032	0.121344	0.051976	0.075962	0.001728	0.000661	0.000726
A	ROG_RUN	0.017718	0.031481	0.015419	0.030737	0.143293	0.11196	0.061566
A	ROG_RUN	0.036077	0.206115	0.068796	0.096948	0.295313	0.07459	0.020322
A	ROG_STR	0.120243	0.235604	0.101235	0.219373	0.255249	0.110465	0.393816
A	SO2_IDLE	0	0	0	0	0.000093	0.000138	0.001406
A	SO2_RUNI	0.002704	0.003418	0.003809	0.005069	0.006737	0.007009	0.011584
A	SO2_STRE	0.000613	0.000792	0.00085	0.001134	0.00034	0.000271	0.000693
A	TOG_DIUF	0.028188	0.11304	0.039519	0.056173	0.002307	0.000812	0.000966
A	TOG_HTS	0.090086	0.304996	0.115811	0.165891	0.09354	0.033427	0.044108
A	TOG_IDLE	0	0	0	0	0.022811	0.019023	0.037377
A	TOG_RES	0.033032	0.121344	0.051976	0.075962	0.001728	0.000661	0.000726
A	TOG_RUN	0.025766	0.045795	0.022475	0.043414	0.175429	0.130665	0.073159
A	TOG_RUN	0.036077	0.206115	0.068796	0.096948	0.295313	0.07459	0.020322
A	TOG_STRI	0.131649	0.257949	0.110838	0.24013	0.279465	0.120945	0.431179
S	FleetMix	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.01594
S	CH4_IDLE	0	0	0	0	0.005189	0.003792	0.01569
S	CH4_RUNI	0.007605	0.013403	0.006668	0.01185	0.020844	0.008886	0.006391
S	CH4_STRE	0.007769	0.015093	0.006527	0.014108	0.018084	0.00785	0.054012
S	CO_IDLE	0	0	0	0	0.142709	0.124765	0.26288
S	CO_RUNE	0.720227	1.537386	0.818016	1.301933	1.223331	0.630567	0.451909
S	CO_STRE	1.338185	2.758873	1.313968	2.37077	2.367934	1.160131	6.199787
S	CO2_NBIC	0	0	0	0	9.281637	14.18079	154.7431
S	CO2_NBIC	285.3168	358.5065	401.5349	533.7209	687.4357	720.4456	1207.329
S	CO2_NBIC	58.49629	73.28469	82.33237	108.3367	29.29151	24.86012	57.75631
S	NOX_IDLE	0	0	0	0	0.091325	0.111512	0.642834

## tblVehicleEF

S	NOX_RUN	0.063854	0.131011	0.072476	0.127717	1.668213	1.02819	1.527205
S	NOX_STRI	0.082511	0.182233	0.120003	0.237578	0.887977	0.489819	11.0075
S	PM10_IDLI	0	0	0	0	0.001025	0.001299	0.000644
S	PM10_PMI	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034
S	PM10_PM*	0.008	0.008	0.008	0.008	0.010238	0.01073	0.012
S	PM10_RUI	0.001905	0.002881	0.001808	0.001946	0.01955	0.015876	0.006721
S	PM10_STF	0.002286	0.003517	0.002231	0.002417	0.000914	0.00042	0.000934
S	PM25_IDLI	0	0	0	0	0.000981	0.001243	0.000616
S	PM25_PMI	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586
S	PM25_PM*	0.002	0.002	0.002	0.002	0.002559	0.002683	0.003
S	PM25_RUI	0.001757	0.002654	0.001663	0.001795	0.018661	0.015167	0.006424
S	PM25_STF	0.002102	0.003234	0.002051	0.002225	0.000841	0.000386	0.000859
S	ROG_DIUF	0.04365	0.17445	0.061001	0.08638	0.003335	0.001179	0.001429
S	ROG_HTS	0.094409	0.322185	0.120954	0.172276	0.097205	0.034762	0.046313
S	ROG_IDLE	0	0	0	0	0.016555	0.014243	0.025442
S	ROG_RES	0.054344	0.199222	0.084321	0.122667	0.002922	0.001121	0.001287
S	ROG_RUN	0.019058	0.033517	0.016564	0.032443	0.144467	0.112235	0.061833
S	ROG_RUN	0.033505	0.187939	0.063063	0.089264	0.284399	0.071761	0.019483
S	ROG_STR	0.104773	0.203561	0.088022	0.19034	0.243885	0.105864	0.375195
S	SO2_IDLE	0	0	0	0	0.000093	0.000138	0.001487
S	SO2_RUNI	0.002859	0.003604	0.004021	0.005345	0.006737	0.007009	0.011584
S	SO2_STRE	0.000608	0.000782	0.000845	0.001125	0.000338	0.00027	0.000686
S	TOG_DIUF	0.04365	0.17445	0.061001	0.08638	0.003335	0.001179	0.001429
S	TOG_HTSI	0.094409	0.322185	0.120954	0.172276	0.097205	0.034762	0.046313
S	TOG_IDLE	0	0	0	0	0.022811	0.019023	0.035153
S	TOG_RES	0.054344	0.199222	0.084321	0.122667	0.002922	0.001121	0.001287
S	TOG_RUN	0.027721	0.048766	0.024145	0.04599	0.177143	0.131066	0.073549
S	TOG_RUN	0.033505	0.187939	0.063063	0.089264	0.284399	0.071761	0.019483
S	TOG_STRI	0.114712	0.222868	0.096372	0.208351	0.267024	0.115907	0.410792
W	FleetMix	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.01594
W	CH4_IDLE	0	0	0	0	0.005189	0.003792	0.018089
W	CH4_RUNI	0.006948	0.012421	0.006106	0.01093	0.020161	0.008726	0.006236
W	CH4_STRE	0.009386	0.018446	0.00791	0.017151	0.019305	0.008344	0.05786
W	CO_IDLEX	0	0	0	0	0.142709	0.124765	0.499439
W	CO_RUNE	0.628138	1.37147	0.716892	1.163017	1.195591	0.624064	0.443583
W	CO_STRE:	1.731218	3.613403	1.704329	3.06912	2.570754	1.255099	6.773093
W	CO2_NBIC	0	0	0	0	9.281637	14.18079	134.1397
W	CO2_NBIC	267.1563	336.7476	376.5645	501.3177	687.4357	720.4456	1207.329
W	CO2_NBIC	58.49629	73.28469	82.33237	108.3367	29.29151	24.86012	57.75631
W	NOX_IDLE	0	0	0	0	0.091325	0.111512	0.59512
W	NOX_RUN	0.071214	0.147607	0.081102	0.143031	1.733408	1.065219	1.581048
W	NOX_STRI	0.093833	0.207162	0.13644	0.27005	0.954778	0.523302	11.07686
W	PM10_IDLI	0	0	0	0	0.001025	0.001299	0.000929
W	PM10_PMI	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034
W	PM10_PM*	0.008	0.008	0.008	0.008	0.010238	0.01073	0.012
W	PM10_RUI	0.001905	0.002881	0.001808	0.001946	0.01955	0.015876	0.006721
W	PM10_STF	0.002286	0.003517	0.002231	0.002417	0.000914	0.00042	0.000934
W	PM25_IDLI	0	0	0	0	0.000981	0.001243	0.000889
W	PM25_PMI	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586
W	PM25_PM*	0.002	0.002	0.002	0.002	0.002559	0.002683	0.003
W	PM25_RUI	0.001757	0.002654	0.001663	0.001795	0.018661	0.015167	0.006424
W	PM25_STF	0.002102	0.003234	0.002051	0.002225	0.000841	0.000386	0.000859

## tblVehicleEF

W	ROG_DIUF	0.023301	0.095622	0.031622	0.044601	0.002144	0.000734	0.000903
W	ROG_HTS	0.099524	0.350951	0.126718	0.179433	0.111084	0.038318	0.049493
W	ROG_IDLE	0	0	0	0	0.016555	0.014243	0.029292
W	ROG_RES	0.027974	0.102826	0.044258	0.064752	0.001528	0.000582	0.000639
W	ROG_RUN	0.01743	0.031091	0.015175	0.030476	0.142778	0.111839	0.061449
W	ROG_RUN	0.04238	0.251513	0.083013	0.116116	0.326265	0.082622	0.0228
W	ROG_STR	0.126588	0.248781	0.106675	0.231404	0.260354	0.112534	0.401921
W	SO2_IDLE	0	0	0	0	0.000093	0.000138	0.001293
W	SO2_RUN	0.002676	0.003384	0.00377	0.00502	0.006737	0.007009	0.011584
W	SO2_STRE	0.000615	0.000796	0.000852	0.001137	0.000341	0.000272	0.000696
W	TOG_DIUF	0.023301	0.095622	0.031622	0.044601	0.002144	0.000734	0.000903
W	TOG_HTS	0.099524	0.350951	0.126718	0.179433	0.111084	0.038318	0.049493
W	TOG_IDLE	0	0	0	0	0.022811	0.019023	0.040484
W	TOG_RES	0.027974	0.102826	0.044258	0.064752	0.001528	0.000582	0.000639
W	TOG_RUN	0.025346	0.045224	0.022118	0.042983	0.174678	0.130488	0.072989
W	TOG_RUN	0.04238	0.251513	0.083013	0.116116	0.326265	0.082622	0.0228
W	TOG_STRI	0.138596	0.272375	0.116794	0.253298	0.285055	0.123211	0.440053

## tblVehicleEF

HHD	OBUS	UBUS	MCY	SBUS	MH
0.023523	0.001912	0.001972	0.00609	0.000748	0.001193
0.775139	0.01277	0	0	0.87153	0
0.12727	0.013483	1.882628	0.479108	0.018348	0.051349
0.103567	0.031583	0.045045	0.15589	0.086847	0.030208
2.623706	0.289508	0	0	6.281745	0
1.151007	0.819521	8.126938	20.90316	1.090166	3.710918
3.461679	6.385142	6.990984	9.68975	7.519098	7.067911
4715.648	108.1677	0	0	1232.553	0
1659.46	1341.719	1953.867	181.5	1121.002	1239.67
10.26911	69.31159	109.9527	46.22325	40.31463	60.83084
21.83106	0.569286	0	0	11.52381	0
3.831515	1.833982	8.183633	1.162076	4.870339	1.698522
19.61814	2.430218	14.39278	0.314085	14.63566	0.972401
0.022212	0.0002	0	0	0.012428	0
0.060717	0.13034	0.584581	0.01176	0.7448	0.13034
0.035251	0.012	0.012	0.004	0.010919	0.012836
0.016697	0.008474	0.12575	0.002075	0.026779	0.032165
0.000105	0.000883	0.000876	0.003915	0.000748	0.001329
0.021251	0.000191	0	0	0.011891	0
0.026021	0.05586	0.250535	0.00504	0.3192	0.05586
0.008813	0.003	0.003	0.001	0.00273	0.003209
0.015975	0.008084	0.120286	0.001943	0.025605	0.030705
0.000096	0.000812	0.000806	0.003697	0.000688	0.001222
0.000099	0.001385	0.002101	0.925541	0.002402	1.122756
0.005333	0.01934	0.043229	0.7595	0.027483	0.095967
0.64805	0.041585	0	0	0.756798	0
0.000092	0.00088	0.002028	0.736536	0.001468	0.586649
0.131284	0.08316	0.606964	2.459244	0.12821	0.153362
0.000531	0.045953	0.008628	0.614066	0.012421	0.030029
0.1034	0.397679	0.607485	2.12714	0.382599	0.407385
0.043186	0.001044	0	0	0.011967	0
0.015119	0.013115	0.010923	0.002229	0.010787	0.01234
0.00016	0.000805	0.001227	0.000683	0.000533	0.000732
0.000099	0.001385	0.002101	0.925541	0.002402	1.122756
0.005333	0.01934	0.043229	0.7595	0.027483	0.095967
0.765286	0.056303	0	0	1.085384	0
0.000092	0.00088	0.002028	0.736536	0.001468	0.586649
0.271332	0.103301	2.562788	3.028628	0.157072	0.214259
0.000531	0.045953	0.008628	0.614066	0.012421	0.030029
0.11321	0.435409	0.665119	2.314463	0.418898	0.446035
0.023523	0.001912	0.001972	0.00609	0.000748	0.001193
0.730842	0.012731	0	0	0.871046	0
0.127315	0.013773	1.883604	0.465981	0.018752	0.05357
0.098614	0.030072	0.040923	0.135525	0.075528	0.028698
1.910494	0.273499	0	0	6.137899	0
1.158279	0.8351	8.146627	19.87765	1.11302	3.841159
3.252886	5.977012	5.965385	8.754843	5.879699	6.597885
4994.002	113.5843	0	0	1293.968	0
1659.46	1341.719	1953.867	181.5	1121.002	1239.67
10.26911	69.31159	109.9527	46.22325	40.31463	60.83084
22.5281	0.587522	0	0	11.89261	0

## tblVehicleEF

3.68851	1.757177	7.892458	1.045233	4.689148	1.601079
19.60348	2.376549	14.33667	0.293977	14.59858	0.922026
0.019045	0.000168	0	0	0.010477	0
0.060717	0.13034	0.584581	0.01176	0.7448	0.13034
0.035251	0.012	0.012	0.004	0.010919	0.012836
0.016697	0.008474	0.12575	0.002075	0.026779	0.032165
0.000105	0.000883	0.000876	0.003915	0.000748	0.001329
0.018222	0.000161	0	0	0.010024	0
0.026021	0.05586	0.250535	0.00504	0.3192	0.05586
0.008813	0.003	0.003	0.001	0.00273	0.003209
0.015975	0.008084	0.120286	0.001943	0.025605	0.030705
0.000096	0.000812	0.000806	0.003697	0.000688	0.001222
0.00015	0.001964	0.002584	1.500505	0.003388	1.551297
0.005507	0.020031	0.045509	0.846997	0.028228	0.096915
0.611277	0.040799	0	0	0.753398	0
0.000167	0.001596	0.003634	1.442164	0.002669	1.026034
0.131393	0.083876	0.60938	2.377435	0.129211	0.158859
0.000518	0.044507	0.007727	0.570244	0.010871	0.029229
0.098455	0.378654	0.551888	1.849099	0.332733	0.38702
0.045735	0.001096	0	0	0.012553	0
0.015119	0.013116	0.010923	0.00221	0.010788	0.012342
0.000157	0.000798	0.001209	0.00066	0.000506	0.000724
0.00015	0.001964	0.002584	1.500505	0.003388	1.551297
0.005507	0.020031	0.045509	0.846997	0.028228	0.096915
0.721837	0.055408	0	0	1.081514	0
0.000167	0.001596	0.003634	1.442164	0.002669	1.026034
0.271491	0.104345	2.566313	2.930935	0.158533	0.22228
0.000518	0.044507	0.007727	0.570244	0.010871	0.029229
0.107796	0.414579	0.604247	2.012028	0.364301	0.423738
0.023523	0.001912	0.001972	0.00609	0.000748	0.001193
0.836312	0.012824	0	0	0.872197	0
0.127251	0.013357	1.882222	0.48627	0.01816	0.050416
0.10575	0.032264	0.046879	0.165638	0.092445	0.030908
3.608618	0.311615	0	0	6.480388	0
1.147863	0.812786	8.118643	21.61064	1.079607	3.655682
3.554822	6.575423	7.451045	10.17754	8.334553	7.290861
4331.255	100.6876	0	0	1147.743	0
1659.46	1341.719	1953.867	181.5	1121.002	1239.67
10.26911	69.31159	109.9527	46.22325	40.31463	60.83084
20.86849	0.544101	0	0	11.01452	0
3.819923	1.828908	8.144721	1.174723	4.851107	1.699533
19.6247	2.454579	14.41724	0.322693	14.65343	0.995242
0.026585	0.000243	0	0	0.015123	0
0.060717	0.13034	0.584581	0.01176	0.7448	0.13034
0.035251	0.012	0.012	0.004	0.010919	0.012836
0.016697	0.008474	0.12575	0.002075	0.026779	0.032165
0.000105	0.000883	0.000876	0.003915	0.000748	0.001329
0.025435	0.000232	0	0	0.014468	0
0.026021	0.05586	0.250535	0.00504	0.3192	0.05586
0.008813	0.003	0.003	0.001	0.00273	0.003209
0.015975	0.008084	0.120286	0.001943	0.025605	0.030705
0.000096	0.000812	0.000806	0.003697	0.000688	0.001222

## tblVehicleEF

0.000088	0.001341	0.001957	0.840871	0.002345	1.165026
0.005898	0.020919	0.050248	1.02546	0.029624	0.125679
0.698832	0.042671	0	0	0.761492	0
0.00008	0.000797	0.001842	0.5779	0.001318	0.547613
0.131236	0.082848	0.60596	2.503055	0.127745	0.151053
0.000583	0.050132	0.010807	0.7216	0.015824	0.032083
0.105579	0.406255	0.632213	2.260234	0.407261	0.416829
0.039667	0.000973	0	0	0.011158	0
0.015119	0.013115	0.010923	0.002241	0.010787	0.012339
0.000162	0.000808	0.001235	0.000695	0.000547	0.000735
0.000088	0.001341	0.001957	0.840871	0.002345	1.165026
0.005898	0.020919	0.050248	1.02546	0.029624	0.125679
0.825286	0.057539	0	0	1.090728	0
0.00008	0.000797	0.001842	0.5779	0.001318	0.547613
0.271262	0.102845	2.561323	3.081087	0.156394	0.210889
0.000583	0.050132	0.010807	0.7216	0.015824	0.032083
0.115596	0.444798	0.692193	2.459229	0.445899	0.456376

tblRoadDust

RoadPerce	RoadSiltLo	MaterialSilt	MaterialMo	MobileAver	MeanVehic	CARB_PM_VMT
100	0.1	4.3	0.5	2.4	40	0

tblWoodstoves

Woodstove NumberCo NumberCa NumberNo NumberPe Woodstove WoodstoveWoodMass



tblFireplaces

FireplacesI NumberWc NumberGa NumberPrc NumberNo FireplaceH FireplaceD FireplaceWoodMass

tblConsumerProducts

ROG_EF	ROG_EF_I	ROG_EF_Pesticides	Fertilizers
2.14E-05	3.54E-07	5.15E-08	

tblAreaCoating

Area_EF_F	Area_Resic	Area_EF_F	Area_Resic	Area_EF_↑	Area_Nonr	Area_EF_↑	Area_Nonr	Reapplicati
250	0	250	0	250	0	250	0	10

tblAreaCoating

Area_EF_F	Area_Parking
250	0

tblLandscapeEquipment

NumberSn	NumberSummerDays
0	180

tblEnergyUse

EnergyUse T24E	NT24E	LightingEleT24NG	NT24NG		
General Liç	0	0	0	0	0

tblWater

WaterLand	WaterLand	IndoorWater	OutdoorWater	Electricity	Electricity	Electricity	Electricity	SepticTank
General Lic	1000sqft	0	0	9727	111	1272	1911	10.33

tblWater

AerobicPer	Anaerobic	AnaDigest	AnaDigest	Cogen	Comb	Digest	Gas	Percent
87.46	2.21	100	0					



tblSolidWaste

SolidWaste	SolidWaste	SolidWaste	LandfillNoC	LandfillCaç	LandfillCaptureGas	EnergyRecovery
General Liç	1000sqft	0	6	94	0	

tblLandUseChange

Vegetation Vegetation AcresBegin AcresEnd CO2peracre

BroadSpec NumberOf CO2perTree

## tblConstEquipMitigation

ConstMitig; FuelType	Tier	NumberOf	TotalNumb	DPF	OxidationCatalyst
Crushing/P Diesel	Tier 3	2	2	No Change	0
Excavators Diesel	Tier 3	2	2	No Change	0
Graders Diesel	Tier 3	1	1	No Change	0
Rubber Tir Diesel	Tier 3	2	2	No Change	0
Scrapers Diesel	Tier 3	1	1	No Change	0
Tractors/Lc Diesel	Tier 3	5	4	No Change	0
Trenchers Diesel	Tier 3	2	2	No Change	0

tblConstDustMitigation

SoilStabiliz	SoilStabiliz	SoilStabiliz	ReplaceGr	ReplaceGr	ReplaceGr	WaterExpo	WaterExpo	WaterExpo
0	0	0	0	0	0	1	2	55

tblConstDustMitigation

WaterExpo	WaterUnpæ	WaterUnpæ	WaterUnpæ	WaterUnpæ	CleanPavedRoadPercentReduction
55	0	0	0	0	0

tblLandUseMitigation

ProjectSett IncreaseD€ IncreaseD€ IncreaseD€ IncreaseDi ImproveW€ ImproveW€ ImproveDe ImproveDe

tblLandUseMitigation

IncreaseTr: IncreaseTr: IntegrateBκ IntegrateBκ ImprovePe ImprovePe ProvideTra ProvideTra ProvideTra



tblLandUseMitigation

Implementl LimitParkin LimitParkin UnbundleP UnbundleP OnStreetM OnStreetM ProvideBR ProvideBR

tblLandUseMitigation

ExpandTra ExpandTra IncreaseTr: IncreaseTr: IncreaseTransitFrequencyHeadwaysPercentReduction

tblCommuterMitigation

Implement	Implement	Implement	TransitSub	TransitSub	TransitSub	Implement	Implement	Workplace
0	0		0	0		0	0	0

tblCommuteMitigation

Workplace	Workplace	Encourage	Encourage	Encourage	Encourage	MarketCon	MarketCon	Employee
0		0				0	0	0

tblCommuteMitigation

Employee\	Employee\	ProvideRid	ProvideRid	Implement!	Implement	SchoolBusProgram	PercentFamilyL
0	2	0	0	0	0		

Jsing

tblAreaMitigation

Landscape	Landscape	Landscape	Landscape	Landscape	Landscape	UseLowVC	UseLowVC	UseLowVC
1	100	1	100	1	100	0	250	0

tblAreaMitigation

UseLowVC	UseLowVC	UseLowVC	UseLowVC	UseLowVC	HearthOnly	NoHearthC	UseLowVC	UseLowVC
250	1	250	1	250	0	1	1	0



UseLowVOCPaintParkingValue  
250

tblEnergyMitigation

ExceedTitl ExceedTitl InstallHigh InstallHigh OnSiteRen KwhGener: KwhGener: PercentOfE PercentOfE

ElectricityUseGenerated

tblApplianceMitigation

ApplianceT	ApplianceL	PercentImprovement
ClothWasher		30
DishWasher		15
Fan		50
Refrigerator		15

tblWaterMitigation

ApplyWate	ApplyWate	ApplyWate	UseReclair	PercentOu	PercentInd	UseGreyW	PercentOu	PercentInd
0	0	0	0	0	0	0	0	0

tblWaterMitigation

InstallLowF	PercentRei	InstallLowF	PercentRei	InstallLowF	PercentRei	InstallLowF	PercentRei	TurfReduct
0	32	0	18	0	20	0	20	0

tblWaterMitigation

TurfReduct	TurfReduct	UseWaterE	UseWaterE	WaterEffici	MAWA	ETWU
0	0	0	6.1	0	0	0

InstituteRe InstituteRecyclingAndCompostingServicesWastePercentReduction



tblOperationalOffRoadEquipment

OperOffRo OperOffRo OperHours OperDaysF OperHorse OperLoadF OperFuelType

tblFleetMix

FleetMixLa LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	
General Liç	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.01594	0.023523

OBUS	UBUS	MCY	SBUS	MH
0.001912	0.001972	0.00609	0.000748	0.001193

tblStationaryGeneratorsPumpsUse

Generators NumberOf Generators HorsePower Load\_Factor HoursPerD HoursPerY GeneratorsPumpsEqui

ipmentDescription

tblStationaryBoilersUse

BoilerEquip NumberOf BoilerFuel BoilerRatin DailyHeatl AnnualHea BoilerEquipmentDescription

tblStationaryUserDefined

UserDefine UserDefine TOG\_lb\_d: TOG\_tpy ROG\_lb\_d: ROG\_tpy CO\_lb\_day CO\_tpy NOX\_lb\_d:

tblStationaryUserDefined

NOX\_tpy SO2\_lb\_dæSO2\_tpy PM10\_lb\_cPM10\_tpy PM2\_5\_lb\_PM2\_5\_tpy CO2\_lb\_dæ CO2\_tpy



tblStationaryUserDefined

CH4\_lb\_dæ CH4\_tpy

tblStationaryGeneratorsPumpsEF

Generators TOG\_EF TOG\_EF\_I ROG\_EF ROG\_EF\_I CO\_EF CO\_EF\_U NOX\_EF NOX\_EF\_U

tblStationaryGeneratorsPumpsEF

SO2\_EF SO2\_EF\_L PM10\_EF PM10\_EF\_PM2\_5\_EF PM2\_5\_EF CO2\_EF CO2\_EF\_L CH4\_EF

CH4\_EF\_UOM

tblStationaryBoilersEF

BoilerEquip TOG\_EF TOG\_EF\_I ROG\_EF ROG\_EF\_I CO\_EF CO\_EF\_U NOX\_EF NOX\_EF\_U

tblStationaryBoilersEF

SO2\_EF SO2\_EF\_L PM10\_EF PM10\_EF\_PM2\_5\_EF PM2\_5\_EF CO2\_EF CO2\_EF\_L CH4\_EF

CH4\_EF\_UOM

## tblRemarks

SubModule	PhaseNam	Season	Remarks
1			See Section 1.3, Project Description.
3			See Section 1.3, Project Description. Based on design documents pr
4			Based on information provided by the City.
5	Architectural Coating		See Section 7.2.1 for Construction Details.
5	Building Construction		See Section 7.2.1 for Construction Details.
5	Demolition		See Section 7.2.1 for Construction Details.
5	Grading		See Section 7.2.1 for Construction Details.
5	Paving		See Section 7.2.1 for Construction Details.
5	Portal Excavation		See Section 7.2.1 for Construction Details.
5	Site Preparation		See Section 7.2.1 for Construction Details.
5	Site Preparation at Poi		See Section 7.2.1 for Construction Details.
5	Site Restoration		See Section 7.2.1 for Construction Details.
5	Trenching		See Section 7.2.1 for Construction Details.
5	Tunnel Excavation		See Section 7.2.1 for Construction Details.
6			See Section 7.2.1 for trip information.
7			CalEEMod Defaults.
8			No demolition of structures anticipated.
9			See Section 7.2.1 for Construction Details.
10			No architectural coatings.
12			No mobile sources during operation.
13	A		CalEEMod defaults.
13	S		CalEEMod defaults.
13	W		CalEEMod defaults.
14			CalEEMod defaults.
15			No hearths.
17			No consumer products.
18			No coatings used in this project phase.
19			There is no landscaping for this project.
20			No energy use for this project.
21			No water use for this project.
22			No solid waste for this project.
23			No land use change.
24			No land use change.
25			Per MM1, all construction equipment will be at least Tier 3. See Secti
27			No traffic mitigation.
28			No traffic mitigation.
29			No architectural coatings for this project. Electric landscape equipme
30			No energy mitigation.
32			No water use mitigation.
33			No solid waste mitigation.
36			No stationary sources.
37			No stationary sources.
38			No stationary sources.
39			No stationary sources.
40			No stationary sources.



provided by the City.

ion 7.2.1 Construction Impacts for more information.

nt is implemented to show no landscaping equipment as model will not take out the summer days.

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**Landfill Gas Pipeline-Trenchless**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	3.45	1000sqft	0.08	3,452.97	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	1726	0
tblAreaCoating	Area_Nonresidential_Interior	5179	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	NumDays	1.00	120.00
tblConstructionPhase	NumDays	1.00	120.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	21.00	0.00
tblLandUse	BuildingSpaceSquareFeet	3,450.00	3,452.97
tblLandUse	LandUseSquareFeet	3,450.00	3,452.97
tblProjectCharacteristics	OperationalYear	2018	2021
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	4.28	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	797,812.50	0.00

## 2.0 Emissions Summary

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.1000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.51	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.05	46.05	0.00	0.00	46.91

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	3/2/2020	3/27/2020	5	20	
2	Portal Excavation	Site Preparation	3/30/2020	9/11/2020	5	120	
3	Site Restoration	Site Preparation	9/14/2020	2/26/2021	5	120	
4	Tunnel Excavation	Trenching	3/1/2021	10/5/2021	5	157	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunnel Excavation	Excavators	1	8.00	158	0.38
Tunnel Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Tunnel Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Tunnel Excavation	Trenchers	1	8.00	78	0.50

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunnel Excavation	5	26.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Site Preparation at Portal Sites - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.6782	20.1828	11.5528	0.0249		0.7937	0.7937		0.7302	0.7302		2,410.502 3	2,410.502 3	0.7796		2,429.992 4
<b>Total</b>	<b>1.6782</b>	<b>20.1828</b>	<b>11.5528</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.7937</b>	<b>0.7937</b>	<b>0.0000</b>	<b>0.7302</b>	<b>0.7302</b>		<b>2,410.502 3</b>	<b>2,410.502 3</b>	<b>0.7796</b>		<b>2,429.992 4</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0330	0.3081	9.8000e-004	0.1022	6.9000e-004	0.1029	0.0271	6.4000e-004	0.0277		97.4472	97.4472	2.8300e-003		97.5180
<b>Total</b>	<b>0.0472</b>	<b>0.0330</b>	<b>0.3081</b>	<b>9.8000e-004</b>	<b>0.1022</b>	<b>6.9000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.4000e-004</b>	<b>0.0277</b>		<b>97.4472</b>	<b>97.4472</b>	<b>2.8300e-003</b>		<b>97.5180</b>

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**3.2 Site Preparation at Portal Sites - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5777	11.9870	13.9515	0.0249		0.5110	0.5110		0.5137	0.5137	0.0000	2,410.502 3	2,410.502 3	0.7796		2,429.992 4
<b>Total</b>	<b>0.5777</b>	<b>11.9870</b>	<b>13.9515</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5110</b>	<b>0.5110</b>	<b>0.0000</b>	<b>0.5137</b>	<b>0.5137</b>	<b>0.0000</b>	<b>2,410.502 3</b>	<b>2,410.502 3</b>	<b>0.7796</b>		<b>2,429.992 4</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0330	0.3081	9.8000e-004	0.1022	6.9000e-004	0.1029	0.0271	6.4000e-004	0.0277		97.4472	97.4472	2.8300e-003		97.5180
<b>Total</b>	<b>0.0472</b>	<b>0.0330</b>	<b>0.3081</b>	<b>9.8000e-004</b>	<b>0.1022</b>	<b>6.9000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.4000e-004</b>	<b>0.0277</b>		<b>97.4472</b>	<b>97.4472</b>	<b>2.8300e-003</b>		<b>97.5180</b>

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**3.3 Portal Excavation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3158	0.0000	4.3158	2.3723	0.0000	2.3723			0.0000			0.0000
Off-Road	2.5068	23.4458	16.6677	0.0272		1.3301	1.3301		1.2430	1.2430		2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>2.5068</b>	<b>23.4458</b>	<b>16.6677</b>	<b>0.0272</b>	<b>4.3158</b>	<b>1.3301</b>	<b>5.6459</b>	<b>2.3723</b>	<b>1.2430</b>	<b>3.6153</b>		<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

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**3.3 Portal Excavation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9421	0.0000	1.9421	1.0676	0.0000	1.0676			0.0000			0.0000
Off-Road	0.6016	13.2298	17.6778	0.0272		0.7472	0.7472		0.7498	0.7498	0.0000	2,619.5716	2,619.5716	0.6814		2,636.6069
<b>Total</b>	<b>0.6016</b>	<b>13.2298</b>	<b>17.6778</b>	<b>0.0272</b>	<b>1.9421</b>	<b>0.7472</b>	<b>2.6893</b>	<b>1.0676</b>	<b>0.7498</b>	<b>1.8174</b>	<b>0.0000</b>	<b>2,619.5716</b>	<b>2,619.5716</b>	<b>0.6814</b>		<b>2,636.6069</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0426	1.6417	2.3577	3.1100e-003		0.1186	0.1186		0.1213	0.1213	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0426</b>	<b>1.6417</b>	<b>2.3577</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1186</b>	<b>0.1186</b>	<b>0.0000</b>	<b>0.1213</b>	<b>0.1213</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

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**3.4 Site Restoration - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1873	1.8958	2.2602	3.1100e-003		0.1118	0.1118		0.1028	0.1028		300.9001	300.9001	0.0973		303.3330
<b>Total</b>	<b>0.1873</b>	<b>1.8958</b>	<b>2.2602</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1118</b>	<b>0.1118</b>	<b>0.0000</b>	<b>0.1028</b>	<b>0.1028</b>		<b>300.9001</b>	<b>300.9001</b>	<b>0.0973</b>		<b>303.3330</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0150	0.1440	4.7000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		47.0852	47.0852	1.3100e-003		47.1178
<b>Total</b>	<b>0.0223</b>	<b>0.0150</b>	<b>0.1440</b>	<b>4.7000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.1000e-004</b>	<b>0.0139</b>		<b>47.0852</b>	<b>47.0852</b>	<b>1.3100e-003</b>		<b>47.1178</b>



Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.4 Site Restoration - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0481	1.6940	2.3625	3.1100e-003		0.1240	0.1240		0.1262	0.1262	0.0000	300.9001	300.9001	0.0973		303.3330
<b>Total</b>	<b>0.0481</b>	<b>1.6940</b>	<b>2.3625</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1240</b>	<b>0.1240</b>	<b>0.0000</b>	<b>0.1262</b>	<b>0.1262</b>	<b>0.0000</b>	<b>300.9001</b>	<b>300.9001</b>	<b>0.0973</b>		<b>303.3330</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0223	0.0150	0.1440	4.7000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.1000e-004	0.0139		47.0852	47.0852	1.3100e-003		47.1178
<b>Total</b>	<b>0.0223</b>	<b>0.0150</b>	<b>0.1440</b>	<b>4.7000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.1000e-004</b>	<b>0.0139</b>		<b>47.0852</b>	<b>47.0852</b>	<b>1.3100e-003</b>		<b>47.1178</b>

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3575	22.0277	16.5155	0.0272		1.2118	1.2118		1.1315	1.1315		2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>2.3575</b>	<b>22.0277</b>	<b>16.5155</b>	<b>0.0272</b>		<b>1.2118</b>	<b>1.2118</b>		<b>1.1315</b>	<b>1.1315</b>		<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.1450	0.0975	0.9358	3.0700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		306.0535	306.0535	8.5000e-003		306.2660
<b>Total</b>	<b>0.1511</b>	<b>0.2923</b>	<b>0.9912</b>	<b>3.5600e-003</b>	<b>0.3444</b>	<b>2.6200e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4200e-003</b>	<b>0.0940</b>		<b>358.3932</b>	<b>358.3932</b>	<b>0.0127</b>		<b>358.7111</b>

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Tunnel Excavation - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6072	13.2821	17.6827	0.0272		0.7525	0.7525		0.7547	0.7547	0.0000	2,619.8969	2,619.8969	0.6780		2,636.8471
<b>Total</b>	<b>0.6072</b>	<b>13.2821</b>	<b>17.6827</b>	<b>0.0272</b>		<b>0.7525</b>	<b>0.7525</b>		<b>0.7547</b>	<b>0.7547</b>	<b>0.0000</b>	<b>2,619.8969</b>	<b>2,619.8969</b>	<b>0.6780</b>		<b>2,636.8471</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0400e-003	0.1948	0.0553	4.9000e-004	0.0123	4.1000e-004	0.0127	3.5300e-003	3.9000e-004	3.9200e-003		52.3397	52.3397	4.2200e-003		52.4451
Worker	0.1450	0.0975	0.9358	3.0700e-003	0.3321	2.2100e-003	0.3343	0.0881	2.0300e-003	0.0901		306.0535	306.0535	8.5000e-003		306.2660
<b>Total</b>	<b>0.1511</b>	<b>0.2923</b>	<b>0.9912</b>	<b>3.5600e-003</b>	<b>0.3444</b>	<b>2.6200e-003</b>	<b>0.3470</b>	<b>0.0916</b>	<b>2.4200e-003</b>	<b>0.0940</b>		<b>358.3932</b>	<b>358.3932</b>	<b>0.0127</b>		<b>358.7111</b>

**4.0 Operational Detail - Mobile**

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Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0684	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
Unmitigated	0.0739	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004

Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		7.6000e-004	7.6000e-004	0.0000		8.1000e-004
<b>Total</b>	<b>0.0739</b>	<b>0.0000</b>	<b>3.5000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>7.6000e-004</b>	<b>7.6000e-004</b>	<b>0.0000</b>		<b>8.1000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0684					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.1000e-004	4.1000e-004	0.0000		4.3000e-004
<b>Total</b>	<b>0.0684</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.1000e-004</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>4.3000e-004</b>

**7.0 Water Detail**



## Landfill Gas Pipeline-Trenchless - San Diego County APCD Air District, Winter

**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

MBC Improvements - San Diego County APCD Air District, Annual

**MBC Improvements**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

MBC Improvements - San Diego County APCD Air District, Annual

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - No water use.

Solid Waste - No solid waste generation.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	10/20/2021	4/6/2020
tblConstructionPhase	PhaseStartDate	4/24/2019	7/2/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction

## MBC Improvements - San Diego County APCD Air District, Annual

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

## 2.0 Emissions Summary

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MBC Improvements - San Diego County APCD Air District, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-24-2019	7-23-2019	0.3939	0.1475
2	7-24-2019	10-23-2019	0.5319	0.3283
3	10-24-2019	1-23-2020	0.5207	0.3284
4	1-24-2020	4-23-2020	0.4161	0.2769
		Highest	0.5319	0.3284

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>



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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	50.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	5/21/2019	5	15	
2	Grading	Grading	5/21/2019	7/1/2019	5	30	
3	Building Construction	Building Construction	7/2/2019	4/6/2020	5	200	
4	Paving	Paving	4/7/2020	4/15/2020	5	7	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Dumpers/Tenders	2	8.00	97	0.37
Demolition	Excavators	1	8.00	158	0.38
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0139	0.1377	0.0845	1.5000e-004		7.1100e-003	7.1100e-003		6.6800e-003	6.6800e-003	0.0000	13.2797	13.2797	3.2100e-003	0.0000	13.3599
<b>Total</b>	<b>0.0139</b>	<b>0.1377</b>	<b>0.0845</b>	<b>1.5000e-004</b>		<b>7.1100e-003</b>	<b>7.1100e-003</b>		<b>6.6800e-003</b>	<b>6.6800e-003</b>	<b>0.0000</b>	<b>13.2797</b>	<b>13.2797</b>	<b>3.2100e-003</b>	<b>0.0000</b>	<b>13.3599</b>

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**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.1900e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5614	0.5614	2.0000e-005	0.0000	0.5618
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.1900e-003</b>	<b>1.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>6.1000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.5614</b>	<b>0.5614</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5618</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4700e-003	0.0518	0.0875	1.5000e-004		3.6300e-003	3.6300e-003		3.5500e-003	3.5500e-003	0.0000	13.2796	13.2796	3.2100e-003	0.0000	13.3599
<b>Total</b>	<b>4.4700e-003</b>	<b>0.0518</b>	<b>0.0875</b>	<b>1.5000e-004</b>		<b>3.6300e-003</b>	<b>3.6300e-003</b>		<b>3.5500e-003</b>	<b>3.5500e-003</b>	<b>0.0000</b>	<b>13.2796</b>	<b>13.2796</b>	<b>3.2100e-003</b>	<b>0.0000</b>	<b>13.3599</b>

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**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.3000e-004	2.1900e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5614	0.5614	2.0000e-005	0.0000	0.5618
<b>Total</b>	<b>3.0000e-004</b>	<b>2.3000e-004</b>	<b>2.1900e-003</b>	<b>1.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>6.1000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.5614</b>	<b>0.5614</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5618</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0113	0.0000	0.0113	6.2100e-003	0.0000	6.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113	0.1024	0.1122	1.9000e-004		4.7300e-003	4.7300e-003		4.4200e-003	4.4200e-003	0.0000	16.5770	16.5770	4.7000e-003	0.0000	16.6945
<b>Total</b>	<b>0.0113</b>	<b>0.1024</b>	<b>0.1122</b>	<b>1.9000e-004</b>	<b>0.0113</b>	<b>4.7300e-003</b>	<b>0.0160</b>	<b>6.2100e-003</b>	<b>4.4200e-003</b>	<b>0.0106</b>	<b>0.0000</b>	<b>16.5770</b>	<b>16.5770</b>	<b>4.7000e-003</b>	<b>0.0000</b>	<b>16.6945</b>

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**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.5000e-004	4.3900e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1227	1.1227	4.0000e-005	0.0000	1.1237
<b>Total</b>	<b>5.9000e-004</b>	<b>4.5000e-004</b>	<b>4.3900e-003</b>	<b>1.0000e-005</b>	<b>1.2000e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.1227</b>	<b>1.1227</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.1237</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.0800e-003	0.0000	5.0800e-003	2.7900e-003	0.0000	2.7900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0113		0.1122	1.9000e-004		4.7300e-003	4.7300e-003		4.4200e-003	4.4200e-003	0.0000	16.5770	16.5770	4.7000e-003	0.0000	16.6945
<b>Total</b>	<b>0.0113</b>		<b>0.1122</b>	<b>1.9000e-004</b>	<b>5.0800e-003</b>	<b>4.7300e-003</b>	<b>9.8100e-003</b>	<b>2.7900e-003</b>	<b>4.4200e-003</b>	<b>7.2100e-003</b>	<b>0.0000</b>	<b>16.5770</b>	<b>16.5770</b>	<b>4.7000e-003</b>	<b>0.0000</b>	<b>16.6945</b>

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**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.5000e-004	4.3900e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1227	1.1227	4.0000e-005	0.0000	1.1237
<b>Total</b>	<b>5.9000e-004</b>	<b>4.5000e-004</b>	<b>4.3900e-003</b>	<b>1.0000e-005</b>	<b>1.2000e-003</b>	<b>1.0000e-005</b>	<b>1.2100e-003</b>	<b>3.2000e-004</b>	<b>1.0000e-005</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>1.1227</b>	<b>1.1227</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.1237</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1082	0.9282	0.6873	1.2300e-003		0.0500	0.0500		0.0478	0.0478	0.0000	104.5673	104.5673	0.0214	0.0000	105.1015
<b>Total</b>	<b>0.1082</b>	<b>0.9282</b>	<b>0.6873</b>	<b>1.2300e-003</b>		<b>0.0500</b>	<b>0.0500</b>		<b>0.0478</b>	<b>0.0478</b>	<b>0.0000</b>	<b>104.5673</b>	<b>104.5673</b>	<b>0.0214</b>	<b>0.0000</b>	<b>105.1015</b>



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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-004	0.0164	4.4200e-003	4.0000e-005	8.7000e-004	1.1000e-004	9.8000e-004	2.5000e-004	1.1000e-004	3.6000e-004	0.0000	3.4804	3.4804	2.8000e-004	0.0000	3.4874
Worker	4.1300e-003	3.1700e-003	0.0307	9.0000e-005	8.4000e-003	6.0000e-005	8.4700e-003	2.2300e-003	6.0000e-005	2.2900e-003	0.0000	7.8442	7.8442	2.5000e-004	0.0000	7.8506
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0196</b>	<b>0.0351</b>	<b>1.3000e-004</b>	<b>9.2700e-003</b>	<b>1.7000e-004</b>	<b>9.4500e-003</b>	<b>2.4800e-003</b>	<b>1.7000e-004</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>11.3246</b>	<b>11.3246</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>11.3379</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0298	0.6006	0.7184	1.2300e-003		0.0353	0.0353		0.0353	0.0353	0.0000	104.5671	104.5671	0.0214	0.0000	105.1013
<b>Total</b>	<b>0.0298</b>	<b>0.6006</b>	<b>0.7184</b>	<b>1.2300e-003</b>		<b>0.0353</b>	<b>0.0353</b>		<b>0.0353</b>	<b>0.0353</b>	<b>0.0000</b>	<b>104.5671</b>	<b>104.5671</b>	<b>0.0214</b>	<b>0.0000</b>	<b>105.1013</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1000e-004	0.0164	4.4200e-003	4.0000e-005	8.7000e-004	1.1000e-004	9.8000e-004	2.5000e-004	1.1000e-004	3.6000e-004	0.0000	3.4804	3.4804	2.8000e-004	0.0000	3.4874
Worker	4.1300e-003	3.1700e-003	0.0307	9.0000e-005	8.4000e-003	6.0000e-005	8.4700e-003	2.2300e-003	6.0000e-005	2.2900e-003	0.0000	7.8442	7.8442	2.5000e-004	0.0000	7.8506
<b>Total</b>	<b>4.7400e-003</b>	<b>0.0196</b>	<b>0.0351</b>	<b>1.3000e-004</b>	<b>9.2700e-003</b>	<b>1.7000e-004</b>	<b>9.4500e-003</b>	<b>2.4800e-003</b>	<b>1.7000e-004</b>	<b>2.6500e-003</b>	<b>0.0000</b>	<b>11.3246</b>	<b>11.3246</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>11.3379</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0513	0.4473	0.3530	6.5000e-004		0.0229	0.0229		0.0219	0.0219	0.0000	54.4767	54.4767	0.0110	0.0000	54.7515
<b>Total</b>	<b>0.0513</b>	<b>0.4473</b>	<b>0.3530</b>	<b>6.5000e-004</b>		<b>0.0229</b>	<b>0.0229</b>		<b>0.0219</b>	<b>0.0219</b>	<b>0.0000</b>	<b>54.4767</b>	<b>54.4767</b>	<b>0.0110</b>	<b>0.0000</b>	<b>54.7515</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	7.8600e-003	2.0900e-003	2.0000e-005	4.6000e-004	4.0000e-005	5.0000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.8206	1.8206	1.4000e-004	0.0000	1.8241
Worker	2.0300e-003	1.5100e-003	0.0148	4.0000e-005	4.4300e-003	3.0000e-005	4.4600e-003	1.1800e-003	3.0000e-005	1.2100e-003	0.0000	4.0013	4.0013	1.2000e-004	0.0000	4.0043
<b>Total</b>	<b>2.2900e-003</b>	<b>9.3700e-003</b>	<b>0.0169</b>	<b>6.0000e-005</b>	<b>4.8900e-003</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.3100e-003</b>	<b>7.0000e-005</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>5.8220</b>	<b>5.8220</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>5.8285</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.3164	0.3784	6.5000e-004		0.0186	0.0186		0.0186	0.0186	0.0000	54.4766	54.4766	0.0110	0.0000	54.7514
<b>Total</b>	<b>0.0157</b>	<b>0.3164</b>	<b>0.3784</b>	<b>6.5000e-004</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>	<b>0.0000</b>	<b>54.4766</b>	<b>54.4766</b>	<b>0.0110</b>	<b>0.0000</b>	<b>54.7514</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6000e-004	7.8600e-003	2.0900e-003	2.0000e-005	4.6000e-004	4.0000e-005	5.0000e-004	1.3000e-004	4.0000e-005	1.7000e-004	0.0000	1.8206	1.8206	1.4000e-004	0.0000	1.8241
Worker	2.0300e-003	1.5100e-003	0.0148	4.0000e-005	4.4300e-003	3.0000e-005	4.4600e-003	1.1800e-003	3.0000e-005	1.2100e-003	0.0000	4.0013	4.0013	1.2000e-004	0.0000	4.0043
<b>Total</b>	<b>2.2900e-003</b>	<b>9.3700e-003</b>	<b>0.0148</b>	<b>6.0000e-005</b>	<b>4.8900e-003</b>	<b>7.0000e-005</b>	<b>4.9600e-003</b>	<b>1.3100e-003</b>	<b>7.0000e-005</b>	<b>1.3800e-003</b>	<b>0.0000</b>	<b>5.8220</b>	<b>5.8220</b>	<b>2.6000e-004</b>	<b>0.0000</b>	<b>5.8285</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3600e-003	0.0245	0.0255	4.0000e-005		1.3100e-003	1.3100e-003		1.2100e-003	1.2100e-003	0.0000	3.4879	3.4879	1.1300e-003	0.0000	3.5161
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.3600e-003</b>	<b>0.0245</b>	<b>0.0255</b>	<b>4.0000e-005</b>		<b>1.3100e-003</b>	<b>1.3100e-003</b>		<b>1.2100e-003</b>	<b>1.2100e-003</b>	<b>0.0000</b>	<b>3.4879</b>	<b>3.4879</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.5161</b>

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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.7000e-004	1.6900e-003	1.0000e-005	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4567	0.4567	1.0000e-005	0.0000	0.4570
<b>Total</b>	<b>2.3000e-004</b>	<b>1.7000e-004</b>	<b>1.6900e-003</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4567</b>	<b>0.4567</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4570</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3500e-003	0.0130	0.0282	4.0000e-005		1.1100e-003	1.1100e-003		1.0800e-003	1.0800e-003	0.0000	3.4879	3.4879	1.1300e-003	0.0000	3.5161
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.3500e-003</b>	<b>0.0130</b>	<b>0.0282</b>	<b>4.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.0800e-003</b>	<b>1.0800e-003</b>	<b>0.0000</b>	<b>3.4879</b>	<b>3.4879</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.5161</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.7000e-004	1.6900e-003	1.0000e-005	5.1000e-004	0.0000	5.1000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4567	0.4567	1.0000e-005	0.0000	0.4570
<b>Total</b>	<b>2.3000e-004</b>	<b>1.7000e-004</b>	<b>1.6900e-003</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>5.1000e-004</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4567</b>	<b>0.4567</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4570</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N





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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

MBC Improvements - San Diego County APCD Air District, Annual

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MBC Improvements - San Diego County APCD Air District, Summer

**MBC Improvements**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

MBC Improvements - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - No water use.

Solid Waste - No solid waste generation.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



MBC Improvements - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	10/20/2021	4/6/2020
tblConstructionPhase	PhaseStartDate	4/24/2019	7/2/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction

## MBC Improvements - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

## 2.0 Emissions Summary

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MBC Improvements - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

MBC Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	100.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	47.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	5/21/2019	5	15	
2	Grading	Grading	5/21/2019	7/1/2019	5	30	
3	Building Construction	Building Construction	7/2/2019	4/6/2020	5	200	
4	Paving	Paving	4/7/2020	4/15/2020	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment



MBC Improvements - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Dumpers/Tenders	2	8.00	97	0.37
Demolition	Excavators	1	8.00	158	0.38
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

MBC Improvements - San Diego County APCD Air District, Summer

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8586	18.3582	11.2658	0.0200		0.9482	0.9482		0.8907	0.8907		1,951.775 4	1,951.775 4	0.4717		1,963.568 4
<b>Total</b>	<b>1.8586</b>	<b>18.3582</b>	<b>11.2658</b>	<b>0.0200</b>		<b>0.9482</b>	<b>0.9482</b>		<b>0.8907</b>	<b>0.8907</b>		<b>1,951.775 4</b>	<b>1,951.775 4</b>	<b>0.4717</b>		<b>1,963.568 4</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5963	6.9002	11.6688	0.0200		0.4836	0.4836		0.4732	0.4732	0.0000	1,951.7754	1,951.7754	0.4717		1,963.5684
<b>Total</b>	<b>0.5963</b>	<b>6.9002</b>	<b>11.6688</b>	<b>0.0200</b>		<b>0.4836</b>	<b>0.4836</b>		<b>0.4732</b>	<b>0.4732</b>	<b>0.0000</b>	<b>1,951.7754</b>	<b>1,951.7754</b>	<b>0.4717</b>		<b>1,963.5684</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7514	6.8242	7.4816	0.0129		0.3153	0.3153		0.2945	0.2945		1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>	<b>6.8242</b>	<b>7.4816</b>	<b>0.0129</b>	<b>0.7528</b>	<b>0.3153</b>	<b>1.0681</b>	<b>0.4138</b>	<b>0.2945</b>	<b>0.7083</b>		<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7514		7.4816	0.0129		0.3153	0.3153		0.2945	0.2945	0.0000	1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>		<b>7.4816</b>	<b>0.0129</b>	<b>0.3387</b>	<b>0.3153</b>	<b>0.6541</b>	<b>0.1862</b>	<b>0.2945</b>	<b>0.4807</b>	<b>0.0000</b>	<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6511	14.1706	10.4925	0.0187		0.7626	0.7626		0.7298	0.7298		1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>1.6511</b>	<b>14.1706</b>	<b>10.4925</b>	<b>0.0187</b>		<b>0.7626</b>	<b>0.7626</b>		<b>0.7298</b>	<b>0.7298</b>		<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4869	12.9652	10.2331	0.0187		0.6638	0.6638		0.6354	0.6354		1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>1.4869</b>	<b>12.9652</b>	<b>10.2331</b>	<b>0.0187</b>		<b>0.6638</b>	<b>0.6638</b>		<b>0.6354</b>	<b>0.6354</b>		<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>



MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6755	7.0036	7.2915	0.0113		0.3749	0.3749		0.3449	0.3449		1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6755</b>	<b>7.0036</b>	<b>7.2915</b>	<b>0.0113</b>		<b>0.3749</b>	<b>0.3749</b>		<b>0.3449</b>	<b>0.3449</b>		<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3845	3.7032	8.0467	0.0113		0.3164	0.3164		0.3080	0.3080	0.0000	1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3845</b>	<b>3.7032</b>	<b>8.0467</b>	<b>0.0113</b>		<b>0.3164</b>	<b>0.3164</b>		<b>0.3080</b>	<b>0.3080</b>	<b>0.0000</b>	<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

MBC Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

MBC Improvements - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

MBC Improvements - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

MBC Improvements - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>



MBC Improvements - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>1.2000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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MBC Improvements - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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MBC Improvements - San Diego County APCD Air District, Winter

**MBC Improvements**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	0.02	1,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

MBC Improvements - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - No water use.

Solid Waste - No solid waste generation.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



MBC Improvements - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	PhaseEndDate	10/20/2021	4/6/2020
tblConstructionPhase	PhaseStartDate	4/24/2019	7/2/2019
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblOffRoadEquipment	HorsePower	16.00	97.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction

## MBC Improvements - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	1.24	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	0.00	16.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,250.00	0.00

## 2.0 Emissions Summary

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MBC Improvements - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

## MBC Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	100.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	47.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2019	5/21/2019	5	15	
2	Grading	Grading	5/21/2019	7/1/2019	5	30	
3	Building Construction	Building Construction	7/2/2019	4/6/2020	5	200	
4	Paving	Paving	4/7/2020	4/15/2020	5	7	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

MBC Improvements - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Dumpers/Tenders	2	8.00	97	0.37
Demolition	Excavators	1	8.00	158	0.38
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

MBC Improvements - San Diego County APCD Air District, Winter

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8586	18.3582	11.2658	0.0200		0.9482	0.9482		0.8907	0.8907		1,951.775 4	1,951.775 4	0.4717		1,963.568 4
<b>Total</b>	<b>1.8586</b>	<b>18.3582</b>	<b>11.2658</b>	<b>0.0200</b>		<b>0.9482</b>	<b>0.9482</b>		<b>0.8907</b>	<b>0.8907</b>		<b>1,951.775 4</b>	<b>1,951.775 4</b>	<b>0.4717</b>		<b>1,963.568 4</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5963	6.9002	11.6688	0.0200		0.4836	0.4836		0.4732	0.4732	0.0000	1,951.7754	1,951.7754	0.4717		1,963.5684
<b>Total</b>	<b>0.5963</b>	<b>6.9002</b>	<b>11.6688</b>	<b>0.0200</b>		<b>0.4836</b>	<b>0.4836</b>		<b>0.4732</b>	<b>0.4732</b>	<b>0.0000</b>	<b>1,951.7754</b>	<b>1,951.7754</b>	<b>0.4717</b>		<b>1,963.5684</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7514	6.8242	7.4816	0.0129		0.3153	0.3153		0.2945	0.2945		1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>	<b>6.8242</b>	<b>7.4816</b>	<b>0.0129</b>	<b>0.7528</b>	<b>0.3153</b>	<b>1.0681</b>	<b>0.4138</b>	<b>0.2945</b>	<b>0.7083</b>		<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7514		7.4816	0.0129		0.3153	0.3153		0.2945	0.2945	0.0000	1,218.2018	1,218.2018	0.3453		1,226.8340
<b>Total</b>	<b>0.7514</b>		<b>7.4816</b>	<b>0.0129</b>	<b>0.3387</b>	<b>0.3153</b>	<b>0.6541</b>	<b>0.1862</b>	<b>0.2945</b>	<b>0.4807</b>	<b>0.0000</b>	<b>1,218.2018</b>	<b>1,218.2018</b>	<b>0.3453</b>		<b>1,226.8340</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6511	14.1706	10.4925	0.0187		0.7626	0.7626		0.7298	0.7298		1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>1.6511</b>	<b>14.1706</b>	<b>10.4925</b>	<b>0.0187</b>		<b>0.7626</b>	<b>0.7626</b>		<b>0.7298</b>	<b>0.7298</b>		<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>



MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,759.7811	1,759.7811	0.3596		1,768.7714
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,759.7811</b>	<b>1,759.7811</b>	<b>0.3596</b>		<b>1,768.7714</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4869	12.9652	10.2331	0.0187		0.6638	0.6638		0.6354	0.6354		1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>1.4869</b>	<b>12.9652</b>	<b>10.2331</b>	<b>0.0187</b>		<b>0.6638</b>	<b>0.6638</b>		<b>0.6354</b>	<b>0.6354</b>		<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4552	9.1697	10.9672	0.0187		0.5382	0.5382		0.5382	0.5382	0.0000	1,740.5868	1,740.5868	0.3512		1,749.3664
<b>Total</b>	<b>0.4552</b>	<b>9.1697</b>	<b>10.9672</b>	<b>0.0187</b>		<b>0.5382</b>	<b>0.5382</b>		<b>0.5382</b>	<b>0.5382</b>	<b>0.0000</b>	<b>1,740.5868</b>	<b>1,740.5868</b>	<b>0.3512</b>		<b>1,749.3664</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6755	7.0036	7.2915	0.0113		0.3749	0.3749		0.3449	0.3449		1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6755</b>	<b>7.0036</b>	<b>7.2915</b>	<b>0.0113</b>		<b>0.3749</b>	<b>0.3749</b>		<b>0.3449</b>	<b>0.3449</b>		<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3845	3.7032	8.0467	0.0113		0.3164	0.3164		0.3080	0.3080	0.0000	1,098.4968	1,098.4968	0.3553		1,107.3787
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3845</b>	<b>3.7032</b>	<b>8.0467</b>	<b>0.0113</b>		<b>0.3164</b>	<b>0.3164</b>		<b>0.3080</b>	<b>0.3080</b>	<b>0.0000</b>	<b>1,098.4968</b>	<b>1,098.4968</b>	<b>0.3553</b>		<b>1,107.3787</b>

MBC Improvements - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

MBC Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

MBC Improvements - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



MBC Improvements - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

MBC Improvements - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

MBC Improvements - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0000	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.2000e-004
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>1.2000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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MBC Improvements - San Diego County APCD Air District, Winter

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Mission Trails Booster Station - San Diego County APCD Air District, Annual

**Mission Trails Booster Station**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	4.03	1000sqft	0.09	4,025.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information. For HRA vendor and haul truck trip length was assumed for onsite diesel emissions only.

On-road Fugitive Dust - CalEEMod Defaults.

## Mission Trails Booster Station - San Diego County APCD Air District, Annual

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use represents grid supplied only. All other energy use emissions are calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Mission Trails Booster Station - San Diego County APCD Air District, Annual

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.21	2,484.47
tblEnergyUse	T24NG	4.31	0.00
tblGrading	AcresOfGrading	22.50	1.10
tblGrading	MaterialExported	0.00	700,000.00
tblGrading	MaterialImported	0.00	112,000.00
tblLandUse	LandUseSquareFeet	4,030.00	4,025.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00



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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	PhaseName		Paving
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tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
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tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
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tblOffRoadEquipment	PhaseName		Trenching

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tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	5.00	0.29
tblTripsAndVMT	HaulingTripNumber	101,500.00	36,750.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	16.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

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tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	931,937.50	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-9-2019	8-8-2019	6.2812	6.0640
2	8-9-2019	11-8-2019	0.3203	0.2269
3	11-9-2019	2-8-2020	0.2759	0.1922
4	2-9-2020	5-8-2020	0.2558	0.1871
5	5-9-2020	8-8-2020	0.2172	0.1610
		Highest	6.2812	6.0640

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0176	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	8.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3,268.0850	3,268.0850	0.1315	0.0272	3,279.4837
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>3,268.1293</b>	<b>3,268.1915</b>	<b>0.1354</b>	<b>0.0272</b>	<b>3,279.6882</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0176	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3,268.0850	3,268.0850	0.1315	0.0272	3,279.4837
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>3,268.1293</b>	<b>3,268.1914</b>	<b>0.1354</b>	<b>0.0272</b>	<b>3,279.6882</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/9/2019	6/19/2019	5	30	
2	Trenching	Trenching	6/20/2019	8/28/2019	5	50	
3	Building Construction	Building Construction	8/29/2019	7/15/2020	5	230	
4	Paving	Paving	7/16/2020	7/22/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 1.1**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	0	4.00	81	0.73
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Excavators	1	4.00	158	0.38
Trenching	Off-Highway Trucks	1	4.00	402	0.38
Trenching	Rollers	1	4.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Welders	2	4.00	46	0.45
Building Construction	Aerial Lifts	2	4.00	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Rollers	1	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	0	4.00	9	0.56
Paving	Crushing/Proc. Equipment	1	4.00	85	0.78
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	4.00	130	0.42
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT



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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	30.00	0.00	36,750.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	26.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1028	0.0000	0.1028	0.0335	0.0000	0.0335	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0293	0.3276	0.1725	3.8000e-004		0.0142	0.0142		0.0130	0.0130	0.0000	33.7484	33.7484	0.0106	0.0000	34.0141
<b>Total</b>	<b>0.0293</b>	<b>0.3276</b>	<b>0.1725</b>	<b>3.8000e-004</b>	<b>0.1028</b>	<b>0.0142</b>	<b>0.1170</b>	<b>0.0335</b>	<b>0.0130</b>	<b>0.0466</b>	<b>0.0000</b>	<b>33.7484</b>	<b>33.7484</b>	<b>0.0106</b>	<b>0.0000</b>	<b>34.0141</b>

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**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1614	5.6310	1.2284	0.0145	0.3144	0.0210	0.3355	0.0864	0.0201	0.1065	0.0000	1,432.5050	1,432.5050	0.1297	0.0000	1,435.7474
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	2.0200e-003	0.0191	6.0000e-005	5.6100e-003	4.0000e-005	5.6500e-003	1.4900e-003	4.0000e-005	1.5300e-003	0.0000	5.1865	5.1865	1.6000e-004	0.0000	5.1906
<b>Total</b>	<b>0.1639</b>	<b>5.6331</b>	<b>1.2475</b>	<b>0.0145</b>	<b>0.3200</b>	<b>0.0211</b>	<b>0.3411</b>	<b>0.0879</b>	<b>0.0202</b>	<b>0.1080</b>	<b>0.0000</b>	<b>1,437.6915</b>	<b>1,437.6915</b>	<b>0.1299</b>	<b>0.0000</b>	<b>1,440.9379</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0463	0.0000	0.0463	0.0151	0.0000	0.0151	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1500e-003	0.1808	0.2086	3.8000e-004		7.6900e-003	7.6900e-003		7.6900e-003	7.6900e-003	0.0000	33.7484	33.7484	0.0106	0.0000	34.0141
<b>Total</b>	<b>9.1500e-003</b>	<b>0.1808</b>	<b>0.2086</b>	<b>3.8000e-004</b>	<b>0.0463</b>	<b>7.6900e-003</b>	<b>0.0540</b>	<b>0.0151</b>	<b>7.6900e-003</b>	<b>0.0228</b>	<b>0.0000</b>	<b>33.7484</b>	<b>33.7484</b>	<b>0.0106</b>	<b>0.0000</b>	<b>34.0141</b>

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**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1614	5.6310	1.2284	0.0145	0.3144	0.0210	0.3355	0.0864	0.0201	0.1065	0.0000	1,432.5050	1,432.5050	0.1297	0.0000	1,435.7474
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4900e-003	2.0200e-003	0.0191	6.0000e-005	5.6100e-003	4.0000e-005	5.6500e-003	1.4900e-003	4.0000e-005	1.5300e-003	0.0000	5.1865	5.1865	1.6000e-004	0.0000	5.1906
<b>Total</b>	<b>0.1639</b>	<b>5.6331</b>	<b>1.2475</b>	<b>0.0145</b>	<b>0.3200</b>	<b>0.0211</b>	<b>0.3411</b>	<b>0.0879</b>	<b>0.0202</b>	<b>0.1080</b>	<b>0.0000</b>	<b>1,437.6915</b>	<b>1,437.6915</b>	<b>0.1299</b>	<b>0.0000</b>	<b>1,440.9379</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.2953	0.2636	4.8000e-004		0.0160	0.0160		0.0151	0.0151	0.0000	41.9714	41.9714	0.0109	0.0000	42.2445
<b>Total</b>	<b>0.0362</b>	<b>0.2953</b>	<b>0.2636</b>	<b>4.8000e-004</b>		<b>0.0160</b>	<b>0.0160</b>		<b>0.0151</b>	<b>0.0151</b>	<b>0.0000</b>	<b>41.9714</b>	<b>41.9714</b>	<b>0.0109</b>	<b>0.0000</b>	<b>42.2445</b>

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**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-003	2.9200e-003	0.0275	8.0000e-005	8.1000e-003	6.0000e-005	8.1600e-003	2.1500e-003	5.0000e-005	2.2100e-003	0.0000	7.4917	7.4917	2.3000e-004	0.0000	7.4975
<b>Total</b>	<b>3.6000e-003</b>	<b>2.9200e-003</b>	<b>0.0275</b>	<b>8.0000e-005</b>	<b>8.1000e-003</b>	<b>6.0000e-005</b>	<b>8.1600e-003</b>	<b>2.1500e-003</b>	<b>5.0000e-005</b>	<b>2.2100e-003</b>	<b>0.0000</b>	<b>7.4917</b>	<b>7.4917</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>7.4975</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0125	0.2485	0.3055	4.8000e-004		0.0138	0.0138		0.0138	0.0138	0.0000	41.9714	41.9714	0.0109	0.0000	42.2445
<b>Total</b>	<b>0.0125</b>	<b>0.2485</b>	<b>0.3055</b>	<b>4.8000e-004</b>		<b>0.0138</b>	<b>0.0138</b>		<b>0.0138</b>	<b>0.0138</b>	<b>0.0000</b>	<b>41.9714</b>	<b>41.9714</b>	<b>0.0109</b>	<b>0.0000</b>	<b>42.2445</b>

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**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-003	2.9200e-003	0.0275	8.0000e-005	8.1000e-003	6.0000e-005	8.1600e-003	2.1500e-003	5.0000e-005	2.2100e-003	0.0000	7.4917	7.4917	2.3000e-004	0.0000	7.4975
<b>Total</b>	<b>3.6000e-003</b>	<b>2.9200e-003</b>	<b>0.0275</b>	<b>8.0000e-005</b>	<b>8.1000e-003</b>	<b>6.0000e-005</b>	<b>8.1600e-003</b>	<b>2.1500e-003</b>	<b>5.0000e-005</b>	<b>2.2100e-003</b>	<b>0.0000</b>	<b>7.4917</b>	<b>7.4917</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>7.4975</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0354	0.3337	0.2601	4.2000e-004		0.0178	0.0178		0.0166	0.0166	0.0000	36.9323	36.9323	0.0111	0.0000	37.2088
<b>Total</b>	<b>0.0354</b>	<b>0.3337</b>	<b>0.2601</b>	<b>4.2000e-004</b>		<b>0.0178</b>	<b>0.0178</b>		<b>0.0166</b>	<b>0.0166</b>	<b>0.0000</b>	<b>36.9323</b>	<b>36.9323</b>	<b>0.0111</b>	<b>0.0000</b>	<b>37.2088</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0106	2.8600e-003	2.0000e-005	5.3000e-004	7.0000e-005	6.0000e-004	1.5000e-004	7.0000e-005	2.2000e-004	0.0000	2.1826	2.1826	1.8000e-004	0.0000	2.1871
Worker	3.9400e-003	3.2000e-003	0.0302	9.0000e-005	8.8800e-003	6.0000e-005	8.9400e-003	2.3600e-003	6.0000e-005	2.4200e-003	0.0000	8.2063	8.2063	2.6000e-004	0.0000	8.2126
<b>Total</b>	<b>4.3300e-003</b>	<b>0.0138</b>	<b>0.0330</b>	<b>1.1000e-004</b>	<b>9.4100e-003</b>	<b>1.3000e-004</b>	<b>9.5400e-003</b>	<b>2.5100e-003</b>	<b>1.3000e-004</b>	<b>2.6400e-003</b>	<b>0.0000</b>	<b>10.3888</b>	<b>10.3888</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>10.3998</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0113	0.2310	0.2805	4.2000e-004		0.0139	0.0139		0.0139	0.0139	0.0000	36.9322	36.9322	0.0111	0.0000	37.2087
<b>Total</b>	<b>0.0113</b>	<b>0.2310</b>	<b>0.2805</b>	<b>4.2000e-004</b>		<b>0.0139</b>	<b>0.0139</b>		<b>0.0139</b>	<b>0.0139</b>	<b>0.0000</b>	<b>36.9322</b>	<b>36.9322</b>	<b>0.0111</b>	<b>0.0000</b>	<b>37.2087</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.9000e-004	0.0106	2.8600e-003	2.0000e-005	5.3000e-004	7.0000e-005	6.0000e-004	1.5000e-004	7.0000e-005	2.2000e-004	0.0000	2.1826	2.1826	1.8000e-004	0.0000	2.1871
Worker	3.9400e-003	3.2000e-003	0.0302	9.0000e-005	8.8800e-003	6.0000e-005	8.9400e-003	2.3600e-003	6.0000e-005	2.4200e-003	0.0000	8.2063	8.2063	2.6000e-004	0.0000	8.2126
<b>Total</b>	<b>4.3300e-003</b>	<b>0.0138</b>	<b>0.0330</b>	<b>1.1000e-004</b>	<b>9.4100e-003</b>	<b>1.3000e-004</b>	<b>9.5400e-003</b>	<b>2.5100e-003</b>	<b>1.3000e-004</b>	<b>2.6400e-003</b>	<b>0.0000</b>	<b>10.3888</b>	<b>10.3888</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>10.3998</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.4841	0.4027	6.7000e-004		0.0247	0.0247		0.0230	0.0230	0.0000	57.3809	57.3809	0.0174	0.0000	57.8158
<b>Total</b>	<b>0.0506</b>	<b>0.4841</b>	<b>0.4027</b>	<b>6.7000e-004</b>		<b>0.0247</b>	<b>0.0247</b>		<b>0.0230</b>	<b>0.0230</b>	<b>0.0000</b>	<b>57.3809</b>	<b>57.3809</b>	<b>0.0174</b>	<b>0.0000</b>	<b>57.8158</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0154	4.0700e-003	4.0000e-005	8.5000e-004	7.0000e-005	9.2000e-004	2.4000e-004	7.0000e-005	3.1000e-004	0.0000	3.4349	3.4349	2.7000e-004	0.0000	3.4417
Worker	5.8500e-003	4.5800e-003	0.0437	1.4000e-004	0.0141	1.0000e-004	0.0142	3.7400e-003	9.0000e-005	3.8300e-003	0.0000	12.5902	12.5902	3.7000e-004	0.0000	12.5994
<b>Total</b>	<b>6.3600e-003</b>	<b>0.0199</b>	<b>0.0478</b>	<b>1.8000e-004</b>	<b>0.0149</b>	<b>1.7000e-004</b>	<b>0.0151</b>	<b>3.9800e-003</b>	<b>1.6000e-004</b>	<b>4.1400e-003</b>	<b>0.0000</b>	<b>16.0251</b>	<b>16.0251</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>16.0411</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0179	0.3660	0.4443	6.7000e-004		0.0220	0.0220		0.0220	0.0220	0.0000	57.3809	57.3809	0.0174	0.0000	57.8157
<b>Total</b>	<b>0.0179</b>	<b>0.3660</b>	<b>0.4443</b>	<b>6.7000e-004</b>		<b>0.0220</b>	<b>0.0220</b>		<b>0.0220</b>	<b>0.0220</b>	<b>0.0000</b>	<b>57.3809</b>	<b>57.3809</b>	<b>0.0174</b>	<b>0.0000</b>	<b>57.8157</b>



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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0154	4.0700e-003	4.0000e-005	8.5000e-004	7.0000e-005	9.2000e-004	2.4000e-004	7.0000e-005	3.1000e-004	0.0000	3.4349	3.4349	2.7000e-004	0.0000	3.4417
Worker	5.8500e-003	4.5800e-003	0.0437	1.4000e-004	0.0141	1.0000e-004	0.0142	3.7400e-003	9.0000e-005	3.8300e-003	0.0000	12.5902	12.5902	3.7000e-004	0.0000	12.5994
<b>Total</b>	<b>6.3600e-003</b>	<b>0.0199</b>	<b>0.0478</b>	<b>1.8000e-004</b>	<b>0.0149</b>	<b>1.7000e-004</b>	<b>0.0151</b>	<b>3.9800e-003</b>	<b>1.6000e-004</b>	<b>4.1400e-003</b>	<b>0.0000</b>	<b>16.0251</b>	<b>16.0251</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>16.0411</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3700e-003	0.0214	0.0190	4.0000e-005		1.0900e-003	1.0900e-003		1.0300e-003	1.0300e-003	0.0000	3.3489	3.3489	9.0000e-004	0.0000	3.3713
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.3700e-003</b>	<b>0.0214</b>	<b>0.0190</b>	<b>4.0000e-005</b>		<b>1.0900e-003</b>	<b>1.0900e-003</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>3.3489</b>	<b>3.3489</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>3.3713</b>

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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
<b>Total</b>	<b>2.3000e-004</b>	<b>1.8000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>5.6000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5023</b>	<b>0.5023</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5026</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0000e-004	0.0186	0.0240	4.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	3.3489	3.3489	9.0000e-004	0.0000	3.3713
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.0000e-004</b>	<b>0.0186</b>	<b>0.0240</b>	<b>4.0000e-005</b>		<b>9.9000e-004</b>	<b>9.9000e-004</b>		<b>9.9000e-004</b>	<b>9.9000e-004</b>	<b>0.0000</b>	<b>3.3489</b>	<b>3.3489</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>3.3713</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
<b>Total</b>	<b>2.3000e-004</b>	<b>1.8000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>5.6000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.5023</b>	<b>0.5023</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5026</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	9.99999e+006	3,268.0850	0.1315	0.0272	3,279.4837
<b>Total</b>		<b>3,268.0850</b>	<b>0.1315</b>	<b>0.0272</b>	<b>3,279.4837</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	9.99999e+006	3,268.0850	0.1315	0.0272	3,279.4837
<b>Total</b>		<b>3,268.0850</b>	<b>0.1315</b>	<b>0.0272</b>	<b>3,279.4837</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0176	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	0.0176	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	8.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	8.0000e-005
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-005</b>



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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Mission Trails Booster Station - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Mission Trails Booster Station - San Diego County APCD Air District, Summer

**Mission Trails Booster Station**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	4.03	1000sqft	0.09	4,025.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information. For HRA vendor and haul truck trip length was assumed for onsite diesel emissions only.

On-road Fugitive Dust - CalEEMod Defaults.

## Mission Trails Booster Station - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use represents grid supplied only. All other energy use emissions are calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Mission Trails Booster Station - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3



Mission Trails Booster Station - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.21	2,484.47
tblEnergyUse	T24NG	4.31	0.00
tblGrading	AcresOfGrading	22.50	1.10
tblGrading	MaterialExported	0.00	700,000.00
tblGrading	MaterialImported	0.00	112,000.00
tblLandUse	LandUseSquareFeet	4,030.00	4,025.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Mission Trails Booster Station - San Diego County APCD Air District, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching

Mission Trails Booster Station - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	5.00	0.29
tblTripsAndVMT	HaulingTripNumber	101,500.00	36,750.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	16.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

## Mission Trails Booster Station - San Diego County APCD Air District, Summer

tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	931,937.50	10,400.00

## 2.0 Emissions Summary

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Mission Trails Booster Station - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.4000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-004</b>

## Mission Trails Booster Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.02	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	46.81

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/9/2019	6/19/2019	5	30	
2	Trenching	Trenching	6/20/2019	8/28/2019	5	50	
3	Building Construction	Building Construction	8/29/2019	7/15/2020	5	230	
4	Paving	Paving	7/16/2020	7/22/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Mission Trails Booster Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	0	4.00	81	0.73
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Excavators	1	4.00	158	0.38
Trenching	Off-Highway Trucks	1	4.00	402	0.38
Trenching	Rollers	1	4.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Welders	2	4.00	46	0.45
Building Construction	Aerial Lifts	2	4.00	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Rollers	1	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	0	4.00	9	0.56
Paving	Crushing/Proc. Equipment	1	4.00	85	0.78
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	4.00	130	0.42
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT



Mission Trails Booster Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	30.00	0.00	36,750.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	26.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8533	0.0000	6.8533	2.2353	0.0000	2.2353			0.0000			0.0000
Off-Road	1.9511	21.8417	11.4981	0.0251		0.9446	0.9446		0.8694	0.8694		2,480.0824	2,480.0824	0.7810		2,499.6076
<b>Total</b>	<b>1.9511</b>	<b>21.8417</b>	<b>11.4981</b>	<b>0.0251</b>	<b>6.8533</b>	<b>0.9446</b>	<b>7.7979</b>	<b>2.2353</b>	<b>0.8694</b>	<b>3.1047</b>		<b>2,480.0824</b>	<b>2,480.0824</b>	<b>0.7810</b>		<b>2,499.6076</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.6332	367.9567	79.4284	0.9721	21.4057	1.3886	22.7942	5.8664	1.3285	7.1949		106,020.4074	106,020.4074	9.3823		106,254.9655
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1631	0.1221	1.3648	4.0400e-003	0.3832	2.6300e-003	0.3858	0.1016	2.4200e-003	0.1040		402.1335	402.1335	0.0125		402.4461
<b>Total</b>	<b>10.7962</b>	<b>368.0787</b>	<b>80.7932</b>	<b>0.9761</b>	<b>21.7888</b>	<b>1.3912</b>	<b>23.1801</b>	<b>5.9680</b>	<b>1.3309</b>	<b>7.2989</b>		<b>106,422.5409</b>	<b>106,422.5409</b>	<b>9.3948</b>		<b>106,657.4116</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0840	0.0000	3.0840	1.0059	0.0000	1.0059			0.0000			0.0000
Off-Road	0.6097	12.0537	13.9068	0.0251		0.5130	0.5130		0.5130	0.5130	0.0000	2,480.0824	2,480.0824	0.7810		2,499.6076
<b>Total</b>	<b>0.6097</b>	<b>12.0537</b>	<b>13.9068</b>	<b>0.0251</b>	<b>3.0840</b>	<b>0.5130</b>	<b>3.5970</b>	<b>1.0059</b>	<b>0.5130</b>	<b>1.5188</b>	<b>0.0000</b>	<b>2,480.0824</b>	<b>2,480.0824</b>	<b>0.7810</b>		<b>2,499.6076</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.6332	367.9567	79.4284	0.9721	21.4057	1.3886	22.7942	5.8664	1.3285	7.1949		106,020.4074	106,020.4074	9.3823		106,254.9655
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1631	0.1221	1.3648	4.0400e-003	0.3832	2.6300e-003	0.3858	0.1016	2.4200e-003	0.1040		402.1335	402.1335	0.0125		402.4461
<b>Total</b>	<b>10.7962</b>	<b>368.0787</b>	<b>80.7932</b>	<b>0.9761</b>	<b>21.7888</b>	<b>1.3912</b>	<b>23.1801</b>	<b>5.9680</b>	<b>1.3309</b>	<b>7.2989</b>		<b>106,422.5409</b>	<b>106,422.5409</b>	<b>9.3948</b>		<b>106,657.4116</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4476	11.8121	10.5446	0.0193		0.6395	0.6395		0.6055	0.6055		1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>1.4476</b>	<b>11.8121</b>	<b>10.5446</b>	<b>0.0193</b>		<b>0.6395</b>	<b>0.6395</b>		<b>0.6055</b>	<b>0.6055</b>		<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.1413</b>	<b>0.1058</b>	<b>1.1828</b>	<b>3.5000e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>348.5157</b>	<b>348.5157</b>	<b>0.0108</b>		<b>348.7866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5018	9.9417	12.2216	0.0193		0.5532	0.5532		0.5532	0.5532	0.0000	1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>0.5018</b>	<b>9.9417</b>	<b>12.2216</b>	<b>0.0193</b>		<b>0.5532</b>	<b>0.5532</b>		<b>0.5532</b>	<b>0.5532</b>	<b>0.0000</b>	<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>

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**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.1413</b>	<b>0.1058</b>	<b>1.1828</b>	<b>3.5000e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>348.5157</b>	<b>348.5157</b>	<b>0.0108</b>		<b>348.7866</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7950	7.4998	5.8450	9.4700e-003		0.4009	0.4009		0.3728	0.3728		914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.7950</b>	<b>7.4998</b>	<b>5.8450</b>	<b>9.4700e-003</b>		<b>0.4009</b>	<b>0.4009</b>		<b>0.3728</b>	<b>0.3728</b>		<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.6300e-003	0.2365	0.0609	5.1000e-004	0.0123	1.5700e-003	0.0138	3.5300e-003	1.5000e-003	5.0300e-003		54.6964	54.6964	4.3500e-003		54.8053
Worker	0.0870	0.0651	0.7279	2.1500e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		214.4712	214.4712	6.6700e-003		214.6379
<b>Total</b>	<b>0.0956</b>	<b>0.3016</b>	<b>0.7887</b>	<b>2.6600e-003</b>	<b>0.2166</b>	<b>2.9700e-003</b>	<b>0.2196</b>	<b>0.0577</b>	<b>2.7900e-003</b>	<b>0.0605</b>		<b>269.1676</b>	<b>269.1676</b>	<b>0.0110</b>		<b>269.4432</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2542	5.1914	6.3026	9.4700e-003		0.3116	0.3116		0.3116	0.3116	0.0000	914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.2542</b>	<b>5.1914</b>	<b>6.3026</b>	<b>9.4700e-003</b>		<b>0.3116</b>	<b>0.3116</b>		<b>0.3116</b>	<b>0.3116</b>	<b>0.0000</b>	<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.6300e-003	0.2365	0.0609	5.1000e-004	0.0123	1.5700e-003	0.0138	3.5300e-003	1.5000e-003	5.0300e-003		54.6964	54.6964	4.3500e-003		54.8053
Worker	0.0870	0.0651	0.7279	2.1500e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		214.4712	214.4712	6.6700e-003		214.6379
<b>Total</b>	<b>0.0956</b>	<b>0.3016</b>	<b>0.7887</b>	<b>2.6600e-003</b>	<b>0.2166</b>	<b>2.9700e-003</b>	<b>0.2196</b>	<b>0.0577</b>	<b>2.7900e-003</b>	<b>0.0605</b>		<b>269.1676</b>	<b>269.1676</b>	<b>0.0110</b>		<b>269.4432</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7182	6.8670	5.7121	9.4700e-003		0.3501	0.3501		0.3256	0.3256		897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.7182</b>	<b>6.8670</b>	<b>5.7121</b>	<b>9.4700e-003</b>		<b>0.3501</b>	<b>0.3501</b>		<b>0.3256</b>	<b>0.3256</b>		<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0884</b>	<b>0.2746</b>	<b>0.7219</b>	<b>2.5900e-003</b>	<b>0.2166</b>	<b>2.3800e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2300e-003</b>	<b>0.0600</b>		<b>262.0422</b>	<b>262.0422</b>	<b>0.0102</b>		<b>262.2964</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2542	5.1914	6.3026	9.4700e-003		0.3116	0.3116		0.3116	0.3116	0.0000	897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.2542</b>	<b>5.1914</b>	<b>6.3026</b>	<b>9.4700e-003</b>		<b>0.3116</b>	<b>0.3116</b>		<b>0.3116</b>	<b>0.3116</b>	<b>0.0000</b>	<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>



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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0884</b>	<b>0.2746</b>	<b>0.7219</b>	<b>2.5900e-003</b>	<b>0.2166</b>	<b>2.3800e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2300e-003</b>	<b>0.0600</b>		<b>262.0422</b>	<b>262.0422</b>	<b>0.0102</b>		<b>262.2964</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9483	8.5592	7.6169	0.0153		0.4368	0.4368		0.4115	0.4115		1,476.6296	1,476.6296	0.3947		1,486.4962
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9483</b>	<b>8.5592</b>	<b>7.6169</b>	<b>0.0153</b>		<b>0.4368</b>	<b>0.4368</b>		<b>0.4115</b>	<b>0.4115</b>		<b>1,476.6296</b>	<b>1,476.6296</b>	<b>0.3947</b>		<b>1,486.4962</b>

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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3597	7.4461	9.6102	0.0153		0.3970	0.3970		0.3970	0.3970	0.0000	1,476.6296	1,476.6296	0.3947		1,486.4962
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3597</b>	<b>7.4461</b>	<b>9.6102</b>	<b>0.0153</b>		<b>0.3970</b>	<b>0.3970</b>		<b>0.3970</b>	<b>0.3970</b>	<b>0.0000</b>	<b>1,476.6296</b>	<b>1,476.6296</b>	<b>0.3947</b>		<b>1,486.4962</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

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**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

Mission Trails Booster Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Unmitigated	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>		<b>9.4000e-004</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>		<b>5.0000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators



Mission Trails Booster Station - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Mission Trails Booster Station - San Diego County APCD Air District, Winter

**Mission Trails Booster Station**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	4.03	1000sqft	0.09	4,025.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information. For HRA vendor and haul truck trip length was assumed for onsite diesel emissions only.

On-road Fugitive Dust - CalEEMod Defaults.

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use represents grid supplied only. All other energy use emissions are calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Mission Trails Booster Station - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.21	2,484.47
tblEnergyUse	T24NG	4.31	0.00
tblGrading	AcresOfGrading	22.50	1.10
tblGrading	MaterialExported	0.00	700,000.00
tblGrading	MaterialImported	0.00	112,000.00
tblLandUse	LandUseSquareFeet	4,030.00	4,025.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	5.00	0.29
tblTripsAndVMT	HaulingTripNumber	101,500.00	36,750.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	20.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	16.00
tblTripsAndVMT	WorkerTripNumber	23.00	18.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	931,937.50	10,400.00

## 2.0 Emissions Summary

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Mission Trails Booster Station - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.4000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-004</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.02	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	46.81

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/9/2019	6/19/2019	5	30	
2	Trenching	Trenching	6/20/2019	8/28/2019	5	50	
3	Building Construction	Building Construction	8/29/2019	7/15/2020	5	230	
4	Paving	Paving	7/16/2020	7/22/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	0	4.00	81	0.73
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Excavators	1	4.00	158	0.38
Trenching	Off-Highway Trucks	1	4.00	402	0.38
Trenching	Rollers	1	4.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Welders	2	4.00	46	0.45
Building Construction	Aerial Lifts	2	4.00	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Rollers	1	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	0	4.00	9	0.56
Paving	Crushing/Proc. Equipment	1	4.00	85	0.78
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	4.00	130	0.42
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Mission Trails Booster Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	30.00	0.00	36,750.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	8	26.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.8533	0.0000	6.8533	2.2353	0.0000	2.2353			0.0000			0.0000
Off-Road	1.9511	21.8417	11.4981	0.0251		0.9446	0.9446		0.8694	0.8694		2,480.0824	2,480.0824	0.7810		2,499.6076
<b>Total</b>	<b>1.9511</b>	<b>21.8417</b>	<b>11.4981</b>	<b>0.0251</b>	<b>6.8533</b>	<b>0.9446</b>	<b>7.7979</b>	<b>2.2353</b>	<b>0.8694</b>	<b>3.1047</b>		<b>2,480.0824</b>	<b>2,480.0824</b>	<b>0.7810</b>		<b>2,499.6076</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.9330	371.7275	85.1208	0.9557	21.4057	1.4210	22.8267	5.8664	1.3595	7.2259		104,236.330	104,236.330	9.7220		104,479.3827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1887	0.1370	1.2632	3.7900e-003	0.3832	2.6300e-003	0.3858	0.1016	2.4200e-003	0.1040		377.3483	377.3483	0.0118		377.6420
<b>Total</b>	<b>11.1217</b>	<b>371.8645</b>	<b>86.3839</b>	<b>0.9594</b>	<b>21.7888</b>	<b>1.4237</b>	<b>23.2125</b>	<b>5.9680</b>	<b>1.3620</b>	<b>7.3300</b>		<b>104,613.6813</b>	<b>104,613.6813</b>	<b>9.7337</b>		<b>104,857.0247</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0840	0.0000	3.0840	1.0059	0.0000	1.0059			0.0000			0.0000
Off-Road	0.6097	12.0537	13.9068	0.0251		0.5130	0.5130		0.5130	0.5130	0.0000	2,480.0824	2,480.0824	0.7810		2,499.6076
<b>Total</b>	<b>0.6097</b>	<b>12.0537</b>	<b>13.9068</b>	<b>0.0251</b>	<b>3.0840</b>	<b>0.5130</b>	<b>3.5970</b>	<b>1.0059</b>	<b>0.5130</b>	<b>1.5188</b>	<b>0.0000</b>	<b>2,480.0824</b>	<b>2,480.0824</b>	<b>0.7810</b>		<b>2,499.6076</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	10.9330	371.7275	85.1208	0.9557	21.4057	1.4210	22.8267	5.8664	1.3595	7.2259		104,236.330	104,236.330	9.7220		104,479.3827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1887	0.1370	1.2632	3.7900e-003	0.3832	2.6300e-003	0.3858	0.1016	2.4200e-003	0.1040		377.3483	377.3483	0.0118		377.6420
<b>Total</b>	<b>11.1217</b>	<b>371.8645</b>	<b>86.3839</b>	<b>0.9594</b>	<b>21.7888</b>	<b>1.4237</b>	<b>23.2125</b>	<b>5.9680</b>	<b>1.3620</b>	<b>7.3300</b>		<b>104,613.6813</b>	<b>104,613.6813</b>	<b>9.7337</b>		<b>104,857.0247</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4476	11.8121	10.5446	0.0193		0.6395	0.6395		0.6055	0.6055		1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>1.4476</b>	<b>11.8121</b>	<b>10.5446</b>	<b>0.0193</b>		<b>0.6395</b>	<b>0.6395</b>		<b>0.6055</b>	<b>0.6055</b>		<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.1636</b>	<b>0.1187</b>	<b>1.0948</b>	<b>3.2800e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>327.0352</b>	<b>327.0352</b>	<b>0.0102</b>		<b>327.2897</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5018	9.9417	12.2216	0.0193		0.5532	0.5532		0.5532	0.5532	0.0000	1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>0.5018</b>	<b>9.9417</b>	<b>12.2216</b>	<b>0.0193</b>		<b>0.5532</b>	<b>0.5532</b>		<b>0.5532</b>	<b>0.5532</b>	<b>0.0000</b>	<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>



Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.1636</b>	<b>0.1187</b>	<b>1.0948</b>	<b>3.2800e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>327.0352</b>	<b>327.0352</b>	<b>0.0102</b>		<b>327.2897</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7950	7.4998	5.8450	9.4700e-003		0.4009	0.4009		0.3728	0.3728		914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.7950</b>	<b>7.4998</b>	<b>5.8450</b>	<b>9.4700e-003</b>		<b>0.4009</b>	<b>0.4009</b>		<b>0.3728</b>	<b>0.3728</b>		<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.0200e-003	0.2363	0.0679	5.0000e-004	0.0123	1.6000e-003	0.0139	3.5300e-003	1.5300e-003	5.0600e-003		53.1931	53.1931	4.6500e-003		53.3093
Worker	0.1007	0.0731	0.6737	2.0200e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		201.2524	201.2524	6.2700e-003		201.4091
<b>Total</b>	<b>0.1097</b>	<b>0.3094</b>	<b>0.7415</b>	<b>2.5200e-003</b>	<b>0.2166</b>	<b>3.0000e-003</b>	<b>0.2196</b>	<b>0.0577</b>	<b>2.8200e-003</b>	<b>0.0606</b>		<b>254.4455</b>	<b>254.4455</b>	<b>0.0109</b>		<b>254.7183</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2542	5.1914	6.3026	9.4700e-003		0.3116	0.3116		0.3116	0.3116	0.0000	914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.2542</b>	<b>5.1914</b>	<b>6.3026</b>	<b>9.4700e-003</b>		<b>0.3116</b>	<b>0.3116</b>		<b>0.3116</b>	<b>0.3116</b>	<b>0.0000</b>	<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.0200e-003	0.2363	0.0679	5.0000e-004	0.0123	1.6000e-003	0.0139	3.5300e-003	1.5300e-003	5.0600e-003		53.1931	53.1931	4.6500e-003		53.3093
Worker	0.1007	0.0731	0.6737	2.0200e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		201.2524	201.2524	6.2700e-003		201.4091
<b>Total</b>	<b>0.1097</b>	<b>0.3094</b>	<b>0.7415</b>	<b>2.5200e-003</b>	<b>0.2166</b>	<b>3.0000e-003</b>	<b>0.2196</b>	<b>0.0577</b>	<b>2.8200e-003</b>	<b>0.0606</b>		<b>254.4455</b>	<b>254.4455</b>	<b>0.0109</b>		<b>254.7183</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7182	6.8670	5.7121	9.4700e-003		0.3501	0.3501		0.3256	0.3256		897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.7182</b>	<b>6.8670</b>	<b>5.7121</b>	<b>9.4700e-003</b>		<b>0.3501</b>	<b>0.3501</b>		<b>0.3256</b>	<b>0.3256</b>		<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.1017</b>	<b>0.2812</b>	<b>0.6772</b>	<b>2.4500e-003</b>	<b>0.2166</b>	<b>2.4100e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2500e-003</b>	<b>0.0600</b>		<b>247.7223</b>	<b>247.7223</b>	<b>0.0101</b>		<b>247.9739</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2542	5.1914	6.3026	9.4700e-003		0.3116	0.3116		0.3116	0.3116	0.0000	897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.2542</b>	<b>5.1914</b>	<b>6.3026</b>	<b>9.4700e-003</b>		<b>0.3116</b>	<b>0.3116</b>		<b>0.3116</b>	<b>0.3116</b>	<b>0.0000</b>	<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.1017</b>	<b>0.2812</b>	<b>0.6772</b>	<b>2.4500e-003</b>	<b>0.2166</b>	<b>2.4100e-003</b>	<b>0.2190</b>	<b>0.0577</b>	<b>2.2500e-003</b>	<b>0.0600</b>		<b>247.7223</b>	<b>247.7223</b>	<b>0.0101</b>		<b>247.9739</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9483	8.5592	7.6169	0.0153		0.4368	0.4368		0.4115	0.4115		1,476.6296	1,476.6296	0.3947		1,486.4962
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9483</b>	<b>8.5592</b>	<b>7.6169</b>	<b>0.0153</b>		<b>0.4368</b>	<b>0.4368</b>		<b>0.4115</b>	<b>0.4115</b>		<b>1,476.6296</b>	<b>1,476.6296</b>	<b>0.3947</b>		<b>1,486.4962</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3597	7.4461	9.6102	0.0153		0.3970	0.3970		0.3970	0.3970	0.0000	1,476.6296	1,476.6296	0.3947		1,486.4962
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.3597</b>	<b>7.4461</b>	<b>9.6102</b>	<b>0.0153</b>		<b>0.3970</b>	<b>0.3970</b>		<b>0.3970</b>	<b>0.3970</b>	<b>0.0000</b>	<b>1,476.6296</b>	<b>1,476.6296</b>	<b>0.3947</b>		<b>1,486.4962</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Mission Trails Booster Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



Mission Trails Booster Station - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Unmitigated	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>		<b>9.4000e-004</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>		<b>5.0000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**Morena Pump Station**  
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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.07	1000sqft	0.14	6,070.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

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Grading -  
Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No operational trips.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation rate of 4.46 lb/person/day.

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF -

Stationary Sources - Process Boilers -

Stationary Sources - Process Boilers EF -

Stationary Sources - User Defined -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

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Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	90.00
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	PhaseEndDate	4/1/2019	6/24/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/15/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/3/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	10/7/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	7/14/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	6/16/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	10/8/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/4/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/25/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

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tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading

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tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	7.53	0.29
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,403,687.50	10,400.00

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**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1371	1.2442	0.9792	1.9300e-003	0.0160	0.0598	0.0759	4.3000e-003	0.0566	0.0609	0.0000	169.0148	169.0148	0.0357	0.0000	169.9083
2020	0.1264	0.8404	0.6975	1.3200e-003	9.3800e-003	0.0425	0.0519	2.5100e-003	0.0406	0.0431	0.0000	112.4960	112.4960	0.0217	0.0000	113.0380
<b>Maximum</b>	<b>0.1371</b>	<b>1.2442</b>	<b>0.9792</b>	<b>1.9300e-003</b>	<b>0.0160</b>	<b>0.0598</b>	<b>0.0759</b>	<b>4.3000e-003</b>	<b>0.0566</b>	<b>0.0609</b>	<b>0.0000</b>	<b>169.0148</b>	<b>169.0148</b>	<b>0.0357</b>	<b>0.0000</b>	<b>169.9083</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0437	0.7844	1.0236	1.9300e-003	0.0160	0.0381	0.0541	4.3000e-003	0.0380	0.0424	0.0000	169.0147	169.0147	0.0357	0.0000	169.9082
2020	0.0617	0.6049	0.7500	1.3200e-003	9.3800e-003	0.0346	0.0439	2.5100e-003	0.0345	0.0371	0.0000	112.4958	112.4958	0.0217	0.0000	113.0379
<b>Maximum</b>	<b>0.0617</b>	<b>0.7844</b>	<b>1.0236</b>	<b>1.9300e-003</b>	<b>0.0160</b>	<b>0.0381</b>	<b>0.0541</b>	<b>4.3000e-003</b>	<b>0.0380</b>	<b>0.0424</b>	<b>0.0000</b>	<b>169.0147</b>	<b>169.0147</b>	<b>0.0357</b>	<b>0.0000</b>	<b>169.9082</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	59.98	33.36	-5.78	0.00	0.00	29.06	23.28	0.00	25.34	23.68	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-2-2019	7-1-2019	0.5715	0.2898
2	7-2-2019	10-1-2019	0.2966	0.2184
3	10-2-2019	1-1-2020	0.5148	0.3207
4	1-2-2020	4-1-2020	0.4793	0.3231
5	4-2-2020	7-1-2020	0.4463	0.3115
6	7-2-2020	9-30-2020	0.0363	0.0280
		Highest	0.5715	0.3231

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2020	6/24/2020	5	7	
2	Building Construction	Building Construction	10/8/2019	6/15/2020	5	180	
3	Demolition	Demolition	4/2/2019	6/3/2019	5	45	
4	Grading	Grading	6/4/2019	10/7/2019	5	90	
5	Paving	Paving	6/25/2020	7/14/2020	5	14	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,105; Non-Residential Outdoor: 3,035; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
	Cranes	1	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**



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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.8900e-003	6.4100e-003	1.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	0.8936	0.8936	7.0000e-005	0.0000	0.8954
<b>Total</b>	<b>0.0290</b>	<b>5.8900e-003</b>	<b>6.4100e-003</b>	<b>1.0000e-005</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>		<b>3.9000e-004</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>0.8936</b>	<b>0.8936</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.8954</b>

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**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0507	0.0507	0.0000	0.0000	0.0508
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0507</b>	<b>0.0507</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0508</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0281					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-004	4.7500e-003	6.4100e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	0.8936	0.8936	7.0000e-005	0.0000	0.8954
<b>Total</b>	<b>0.0283</b>	<b>4.7500e-003</b>	<b>6.4100e-003</b>	<b>1.0000e-005</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>		<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.8936</b>	<b>0.8936</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.8954</b>

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**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0507	0.0507	0.0000	0.0000	0.0508
<b>Total</b>	<b>3.0000e-005</b>	<b>2.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0507</b>	<b>0.0507</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0508</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	0.4307	0.3193	5.7000e-004		0.0232	0.0232		0.0222	0.0222	0.0000	48.5536	48.5536	9.9100e-003	0.0000	48.8012
<b>Total</b>	<b>0.0502</b>	<b>0.4307</b>	<b>0.3193</b>	<b>5.7000e-004</b>		<b>0.0232</b>	<b>0.0232</b>		<b>0.0222</b>	<b>0.0222</b>	<b>0.0000</b>	<b>48.5536</b>	<b>48.5536</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>48.8012</b>

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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9000e-004	7.6600e-003	2.0600e-003	2.0000e-005	4.0000e-004	5.0000e-005	4.6000e-004	1.2000e-004	5.0000e-005	1.7000e-004	0.0000	1.6206	1.6206	1.3000e-004	0.0000	1.6239
Worker	1.9200e-003	1.4800e-003	0.0143	4.0000e-005	3.9100e-003	3.0000e-005	3.9400e-003	1.0400e-003	3.0000e-005	1.0700e-003	0.0000	3.6527	3.6527	1.2000e-004	0.0000	3.6556
<b>Total</b>	<b>2.2100e-003</b>	<b>9.1400e-003</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.3100e-003</b>	<b>8.0000e-005</b>	<b>4.4000e-003</b>	<b>1.1600e-003</b>	<b>8.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>5.2733</b>	<b>5.2733</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>5.2795</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.2789	0.3336	5.7000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	48.5535	48.5535	9.9100e-003	0.0000	48.8012
<b>Total</b>	<b>0.0138</b>	<b>0.2789</b>	<b>0.3336</b>	<b>5.7000e-004</b>		<b>0.0164</b>	<b>0.0164</b>		<b>0.0164</b>	<b>0.0164</b>	<b>0.0000</b>	<b>48.5535</b>	<b>48.5535</b>	<b>9.9100e-003</b>	<b>0.0000</b>	<b>48.8012</b>

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**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9000e-004	7.6600e-003	2.0600e-003	2.0000e-005	4.0000e-004	5.0000e-005	4.6000e-004	1.2000e-004	5.0000e-005	1.7000e-004	0.0000	1.6206	1.6206	1.3000e-004	0.0000	1.6239
Worker	1.9200e-003	1.4800e-003	0.0143	4.0000e-005	3.9100e-003	3.0000e-005	3.9400e-003	1.0400e-003	3.0000e-005	1.0700e-003	0.0000	3.6527	3.6527	1.2000e-004	0.0000	3.6556
<b>Total</b>	<b>2.2100e-003</b>	<b>9.1400e-003</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.3100e-003</b>	<b>8.0000e-005</b>	<b>4.4000e-003</b>	<b>1.1600e-003</b>	<b>8.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>5.2733</b>	<b>5.2733</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>5.2795</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0882	0.7688	0.6075	1.1100e-003		0.0394	0.0394		0.0377	0.0377	0.0000	93.6891	93.6891	0.0189	0.0000	94.1609
<b>Total</b>	<b>0.0882</b>	<b>0.7688</b>	<b>0.6075</b>	<b>1.1100e-003</b>		<b>0.0394</b>	<b>0.0394</b>		<b>0.0377</b>	<b>0.0377</b>	<b>0.0000</b>	<b>93.6891</b>	<b>93.6891</b>	<b>0.0189</b>	<b>0.0000</b>	<b>94.1609</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0136	3.6000e-003	3.0000e-005	7.9000e-004	7.0000e-005	8.6000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.1400	3.1400	2.4000e-004	0.0000	3.1460
Worker	3.5100e-003	2.6000e-003	0.0255	8.0000e-005	7.6300e-003	5.0000e-005	7.6900e-003	2.0300e-003	5.0000e-005	2.0800e-003	0.0000	6.9008	6.9008	2.1000e-004	0.0000	6.9060
<b>Total</b>	<b>3.9600e-003</b>	<b>0.0162</b>	<b>0.0291</b>	<b>1.1000e-004</b>	<b>8.4200e-003</b>	<b>1.2000e-004</b>	<b>8.5500e-003</b>	<b>2.2600e-003</b>	<b>1.1000e-004</b>	<b>2.3700e-003</b>	<b>0.0000</b>	<b>10.0408</b>	<b>10.0408</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>10.0520</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0270	0.5441	0.6508	1.1100e-003		0.0320	0.0320		0.0320	0.0320	0.0000	93.6890	93.6890	0.0189	0.0000	94.1607
<b>Total</b>	<b>0.0270</b>	<b>0.5441</b>	<b>0.6508</b>	<b>1.1100e-003</b>		<b>0.0320</b>	<b>0.0320</b>		<b>0.0320</b>	<b>0.0320</b>	<b>0.0000</b>	<b>93.6890</b>	<b>93.6890</b>	<b>0.0189</b>	<b>0.0000</b>	<b>94.1607</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0136	3.6000e-003	3.0000e-005	7.9000e-004	7.0000e-005	8.6000e-004	2.3000e-004	6.0000e-005	2.9000e-004	0.0000	3.1400	3.1400	2.4000e-004	0.0000	3.1460
Worker	3.5100e-003	2.6000e-003	0.0255	8.0000e-005	7.6300e-003	5.0000e-005	7.6900e-003	2.0300e-003	5.0000e-005	2.0800e-003	0.0000	6.9008	6.9008	2.1000e-004	0.0000	6.9060
<b>Total</b>	<b>3.9600e-003</b>	<b>0.0162</b>	<b>0.0291</b>	<b>1.1000e-004</b>	<b>8.4200e-003</b>	<b>1.2000e-004</b>	<b>8.5500e-003</b>	<b>2.2600e-003</b>	<b>1.1000e-004</b>	<b>2.3700e-003</b>	<b>0.0000</b>	<b>10.0408</b>	<b>10.0408</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>10.0520</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0451	0.4340	0.2648	4.8000e-004		0.0221	0.0221		0.0209	0.0209	0.0000	42.3268	42.3268	9.9000e-003	0.0000	42.5742
<b>Total</b>	<b>0.0451</b>	<b>0.4340</b>	<b>0.2648</b>	<b>4.8000e-004</b>		<b>0.0221</b>	<b>0.0221</b>		<b>0.0209</b>	<b>0.0209</b>	<b>0.0000</b>	<b>42.3268</b>	<b>42.3268</b>	<b>9.9000e-003</b>	<b>0.0000</b>	<b>42.5742</b>

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**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.5000e-004	9.2200e-003	3.0000e-005	2.5300e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.3578	2.3578	8.0000e-005	0.0000	2.3597
<b>Total</b>	<b>1.2400e-003</b>	<b>9.5000e-004</b>	<b>9.2200e-003</b>	<b>3.0000e-005</b>	<b>2.5300e-003</b>	<b>2.0000e-005</b>	<b>2.5400e-003</b>	<b>6.7000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.3578</b>	<b>2.3578</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.3597</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0104	0.2108	0.2774	4.8000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	42.3267	42.3267	9.9000e-003	0.0000	42.5741
<b>Total</b>	<b>0.0104</b>	<b>0.2108</b>	<b>0.2774</b>	<b>4.8000e-004</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>42.3267</b>	<b>42.3267</b>	<b>9.9000e-003</b>	<b>0.0000</b>	<b>42.5741</b>



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**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2400e-003	9.5000e-004	9.2200e-003	3.0000e-005	2.5300e-003	2.0000e-005	2.5400e-003	6.7000e-004	2.0000e-005	6.9000e-004	0.0000	2.3578	2.3578	8.0000e-005	0.0000	2.3597
<b>Total</b>	<b>1.2400e-003</b>	<b>9.5000e-004</b>	<b>9.2200e-003</b>	<b>3.0000e-005</b>	<b>2.5300e-003</b>	<b>2.0000e-005</b>	<b>2.5400e-003</b>	<b>6.7000e-004</b>	<b>2.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.3578</b>	<b>2.3578</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.3597</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0337	0.3059	0.3352	5.8000e-004		0.0141	0.0141		0.0132	0.0132	0.0000	49.5224	49.5224	0.0140	0.0000	49.8731
<b>Total</b>	<b>0.0337</b>	<b>0.3059</b>	<b>0.3352</b>	<b>5.8000e-004</b>		<b>0.0141</b>	<b>0.0141</b>		<b>0.0132</b>	<b>0.0132</b>	<b>0.0000</b>	<b>49.5224</b>	<b>49.5224</b>	<b>0.0140</b>	<b>0.0000</b>	<b>49.8731</b>

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**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7600e-003	0.0613	0.0134	1.6000e-004	3.4200e-003	2.3000e-004	3.6500e-003	9.4000e-004	2.2000e-004	1.1600e-003	0.0000	15.5919	15.5919	1.4100e-003	0.0000	15.6272
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8400e-003	2.1800e-003	0.0211	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3892	5.3892	1.7000e-004	0.0000	5.3935
<b>Total</b>	<b>4.6000e-003</b>	<b>0.0635</b>	<b>0.0344</b>	<b>2.2000e-004</b>	<b>9.1900e-003</b>	<b>2.7000e-004</b>	<b>9.4700e-003</b>	<b>2.4700e-003</b>	<b>2.6000e-004</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>20.9811</b>	<b>20.9811</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>21.0207</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.2211	0.3526	5.8000e-004		0.0107	0.0107		0.0107	0.0107	0.0000	49.5223	49.5223	0.0140	0.0000	49.8731
<b>Total</b>	<b>0.0114</b>	<b>0.2211</b>	<b>0.3526</b>	<b>5.8000e-004</b>		<b>0.0107</b>	<b>0.0107</b>		<b>0.0107</b>	<b>0.0107</b>	<b>0.0000</b>	<b>49.5223</b>	<b>49.5223</b>	<b>0.0140</b>	<b>0.0000</b>	<b>49.8731</b>

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**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7600e-003	0.0613	0.0134	1.6000e-004	3.4200e-003	2.3000e-004	3.6500e-003	9.4000e-004	2.2000e-004	1.1600e-003	0.0000	15.5919	15.5919	1.4100e-003	0.0000	15.6272
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8400e-003	2.1800e-003	0.0211	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.3892	5.3892	1.7000e-004	0.0000	5.3935
<b>Total</b>	<b>4.6000e-003</b>	<b>0.0635</b>	<b>0.0344</b>	<b>2.2000e-004</b>	<b>9.1900e-003</b>	<b>2.7000e-004</b>	<b>9.4700e-003</b>	<b>2.4700e-003</b>	<b>2.6000e-004</b>	<b>2.7300e-003</b>	<b>0.0000</b>	<b>20.9811</b>	<b>20.9811</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>21.0207</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7500e-003	0.0492	0.0513	8.0000e-005		2.6300e-003	2.6300e-003		2.4200e-003	2.4200e-003	0.0000	7.0099	7.0099	2.2700e-003	0.0000	7.0666
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.7500e-003</b>	<b>0.0492</b>	<b>0.0513</b>	<b>8.0000e-005</b>		<b>2.6300e-003</b>	<b>2.6300e-003</b>		<b>2.4200e-003</b>	<b>2.4200e-003</b>	<b>0.0000</b>	<b>7.0099</b>	<b>7.0099</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>7.0666</b>

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**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.1000e-004	3.0000e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8119	0.8119	2.0000e-005	0.0000	0.8125
<b>Total</b>	<b>4.1000e-004</b>	<b>3.1000e-004</b>	<b>3.0000e-003</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.8119</b>	<b>0.8119</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8125</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9600e-003	0.0395	0.0605	8.0000e-005		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003	0.0000	7.0099	7.0099	2.2700e-003	0.0000	7.0666
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.9600e-003</b>	<b>0.0395</b>	<b>0.0605</b>	<b>8.0000e-005</b>		<b>2.1300e-003</b>	<b>2.1300e-003</b>		<b>2.1300e-003</b>	<b>2.1300e-003</b>	<b>0.0000</b>	<b>7.0099</b>	<b>7.0099</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>7.0666</b>

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**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.1000e-004	3.0000e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8119	0.8119	2.0000e-005	0.0000	0.8125
<b>Total</b>	<b>4.1000e-004</b>	<b>3.1000e-004</b>	<b>3.0000e-003</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.8119</b>	<b>0.8119</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8125</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
Unmitigated	0.0265	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0237					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.2000e-004
<b>Total</b>	<b>0.0265</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pump Station - San Diego County APCD Air District, Summer

**Morena Pump Station**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.07	1000sqft	0.14	6,070.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.



Morena Pump Station - San Diego County APCD Air District, Summer

Grading -  
Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No operational trips.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation rate of 4.46 lb/person/day.

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF -

Stationary Sources - Process Boilers -

Stationary Sources - Process Boilers EF -

Stationary Sources - User Defined -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Morena Pump Station - San Diego County APCD Air District, Summer

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

Morena Pump Station - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	90.00
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	PhaseEndDate	4/1/2019	6/24/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/15/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/3/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	10/7/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	7/14/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	6/16/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	10/8/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/4/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/25/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

Morena Pump Station - San Diego County APCD Air District, Summer

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading

Morena Pump Station - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	7.53	0.29
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,403,687.50	10,400.00

Morena Pump Station - San Diego County APCD Air District, Summer

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.0607	19.3276	12.2006	0.0227	0.2091	0.9848	1.0998	0.0561	0.9272	0.9577	0.0000	2,195.4840	2,195.4840	0.4887	0.0000	2,207.7014
2020	8.2879	13.1865	10.7210	0.0206	0.1450	0.6638	0.8088	0.0388	0.6354	0.6742	0.0000	1,929.3539	1,929.3539	0.3610	0.0000	1,938.3032
<b>Maximum</b>	<b>8.2879</b>	<b>19.3276</b>	<b>12.2006</b>	<b>0.0227</b>	<b>0.2091</b>	<b>0.9848</b>	<b>1.0998</b>	<b>0.0561</b>	<b>0.9272</b>	<b>0.9577</b>	<b>0.0000</b>	<b>2,195.4840</b>	<b>2,195.4840</b>	<b>0.4887</b>	<b>0.0000</b>	<b>2,207.7014</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.5260	9.4366	12.7600	0.0227	0.2091	0.5397	0.6847	0.0561	0.5396	0.5783	0.0000	2,195.4840	2,195.4840	0.4887	0.0000	2,207.7014
2020	8.1052	9.4098	11.4486	0.0206	0.1450	0.5391	0.6841	0.0388	0.5390	0.5777	0.0000	1,929.3539	1,929.3539	0.3610	0.0000	1,938.3032
<b>Maximum</b>	<b>8.1052</b>	<b>9.4366</b>	<b>12.7600</b>	<b>0.0227</b>	<b>0.2091</b>	<b>0.5397</b>	<b>0.6847</b>	<b>0.0561</b>	<b>0.5396</b>	<b>0.5783</b>	<b>0.0000</b>	<b>2,195.4840</b>	<b>2,195.4840</b>	<b>0.4887</b>	<b>0.0000</b>	<b>2,207.7014</b>

## Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.60	42.04	-5.61	0.00	0.00	34.56	28.29	0.00	30.98	29.16	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pump Station - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>



## Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2020	6/24/2020	5	7	
2	Building Construction	Building Construction	10/8/2019	6/15/2020	5	180	
3	Demolition	Demolition	4/2/2019	6/3/2019	5	45	
4	Grading	Grading	6/4/2019	10/7/2019	5	90	
5	Paving	Paving	6/25/2020	7/14/2020	5	14	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,105; Non-Residential Outdoor: 3,035; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Morena Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
	Cranes	1	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**

Morena Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Clean Paved Roads

**3.2 Architectural Coating - 2020**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.2806</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.3400e-003	4.9400e-003	0.0567	1.7000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		16.8549	16.8549	5.0000e-004		16.8675
<b>Total</b>	<b>7.3400e-003</b>	<b>4.9400e-003</b>	<b>0.0567</b>	<b>1.7000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>16.8549</b>	<b>16.8549</b>	<b>5.0000e-004</b>		<b>16.8675</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.0978</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	7.3400e-003	4.9400e-003	0.0567	1.7000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		16.8549	16.8549	5.0000e-004		16.8675
<b>Total</b>	<b>7.3400e-003</b>	<b>4.9400e-003</b>	<b>0.0567</b>	<b>1.7000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>16.8549</b>	<b>16.8549</b>	<b>5.0000e-004</b>		<b>16.8675</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6468	14.1218	10.4681	0.0187		0.7603	0.7603		0.7277	0.7277		1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>1.6468</b>	<b>14.1218</b>	<b>10.4681</b>	<b>0.0187</b>		<b>0.7603</b>	<b>0.7603</b>		<b>0.7277</b>	<b>0.7277</b>		<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0720</b>	<b>0.2918</b>	<b>0.5591</b>	<b>1.9500e-003</b>	<b>0.1450</b>	<b>2.6700e-003</b>	<b>0.1476</b>	<b>0.0388</b>	<b>2.5100e-003</b>	<b>0.0413</b>		<b>198.4353</b>	<b>198.4353</b>	<b>9.0200e-003</b>		<b>198.6607</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4831	12.9214	10.2100	0.0187		0.6618	0.6618		0.6335	0.6335		1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>1.4831</b>	<b>12.9214</b>	<b>10.2100</b>	<b>0.0187</b>		<b>0.6618</b>	<b>0.6618</b>		<b>0.6335</b>	<b>0.6335</b>		<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>



Morena Pump Station - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0662</b>	<b>0.2651</b>	<b>0.5110</b>	<b>1.9000e-003</b>	<b>0.1450</b>	<b>2.0200e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9100e-003</b>	<b>0.0407</b>		<b>193.6476</b>	<b>193.6476</b>	<b>8.3700e-003</b>		<b>193.8567</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0057	19.2892	11.7675	0.0215		0.9840	0.9840		0.9265	0.9265		2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>2.0057</b>	<b>19.2892</b>	<b>11.7675</b>	<b>0.0215</b>		<b>0.9840</b>	<b>0.9840</b>		<b>0.9265</b>	<b>0.9265</b>		<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4620	9.3691	12.3268	0.0215		0.4728	0.4728		0.4728	0.4728	0.0000	2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>0.4620</b>	<b>9.3691</b>	<b>12.3268</b>	<b>0.0215</b>		<b>0.4728</b>	<b>0.4728</b>		<b>0.4728</b>	<b>0.4728</b>	<b>0.0000</b>	<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7488	6.7973	7.4490	0.0128		0.3140	0.3140		0.2933	0.2933		1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.7488</b>	<b>6.7973</b>	<b>7.4490</b>	<b>0.0128</b>		<b>0.3140</b>	<b>0.3140</b>		<b>0.2933</b>	<b>0.2933</b>		<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0386	1.3350	0.2882	3.5300e-003	0.0777	5.0400e-003	0.0827	0.0213	4.8200e-003	0.0261		384.6545	384.6545	0.0340		385.5055
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1014</b>	<b>1.3788</b>	<b>0.7832</b>	<b>4.9300e-003</b>	<b>0.2091</b>	<b>5.9800e-003</b>	<b>0.2151</b>	<b>0.0561</b>	<b>5.6800e-003</b>	<b>0.0618</b>		<b>523.8865</b>	<b>523.8865</b>	<b>0.0385</b>		<b>524.8486</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2541	4.9134	7.8360	0.0128		0.2372	0.2372		0.2372	0.2372	0.0000	1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.2541</b>	<b>4.9134</b>	<b>7.8360</b>	<b>0.0128</b>		<b>0.2372</b>	<b>0.2372</b>		<b>0.2372</b>	<b>0.2372</b>	<b>0.0000</b>	<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0386	1.3350	0.2882	3.5300e-003	0.0777	5.0400e-003	0.0827	0.0213	4.8200e-003	0.0261		384.6545	384.6545	0.0340		385.5055
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1014</b>	<b>1.3788</b>	<b>0.7832</b>	<b>4.9300e-003</b>	<b>0.2091</b>	<b>5.9800e-003</b>	<b>0.2151</b>	<b>0.0561</b>	<b>5.6800e-003</b>	<b>0.0618</b>		<b>523.8865</b>	<b>523.8865</b>	<b>0.0385</b>		<b>524.8486</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463		1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6783</b>	<b>7.0328</b>	<b>7.3260</b>	<b>0.0114</b>		<b>0.3764</b>	<b>0.3764</b>		<b>0.3463</b>	<b>0.3463</b>		<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0587</b>	<b>0.0396</b>	<b>0.4535</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>134.8395</b>	<b>134.8395</b>	<b>4.0300e-003</b>		<b>134.9402</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	5.6476	8.6478	0.0114		0.3047	0.3047		0.3047	0.3047	0.0000	1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>5.6476</b>	<b>8.6478</b>	<b>0.0114</b>		<b>0.3047</b>	<b>0.3047</b>		<b>0.3047</b>	<b>0.3047</b>	<b>0.0000</b>	<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0396	0.4535	1.3500e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		134.8395	134.8395	4.0300e-003		134.9402
<b>Total</b>	<b>0.0587</b>	<b>0.0396</b>	<b>0.4535</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>134.8395</b>	<b>134.8395</b>	<b>4.0300e-003</b>		<b>134.9402</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



Morena Pump Station - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

Morena Pump Station - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Morena Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Unmitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

Morena Pump Station - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Morena Pump Station - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Morena Pump Station - San Diego County APCD Air District, Winter

**Morena Pump Station**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.07	1000sqft	0.14	6,070.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Morena Pump Station - San Diego County APCD Air District, Winter

Grading -  
Demolition -

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No operational trips.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation rate of 4.46 lb/person/day.

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - Emergency Generators and Fire Pumps EF -

Stationary Sources - Process Boilers -

Stationary Sources - Process Boilers EF -

Stationary Sources - User Defined -

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Morena Pump Station - San Diego County APCD Air District, Winter

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3



Morena Pump Station - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	7.00
tblConstructionPhase	NumDays	100.00	180.00
tblConstructionPhase	NumDays	10.00	45.00
tblConstructionPhase	NumDays	2.00	90.00
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	PhaseEndDate	4/1/2019	6/24/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/15/2020
tblConstructionPhase	PhaseEndDate	4/1/2019	6/3/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	10/7/2019
tblConstructionPhase	PhaseEndDate	4/1/2019	7/14/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	6/16/2020
tblConstructionPhase	PhaseStartDate	4/2/2019	10/8/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/4/2019
tblConstructionPhase	PhaseStartDate	4/2/2019	6/25/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00

Morena Pump Station - San Diego County APCD Air District, Winter

tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading

## Morena Pump Station - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	7.53	0.29
tblTripsAndVMT	HaulingTripNumber	0.00	400.00
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,403,687.50	10,400.00

Morena Pump Station - San Diego County APCD Air District, Winter

**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.0679	19.3323	12.1768	0.0226	0.2091	0.9848	1.0998	0.0561	0.9272	0.9577	0.0000	2,188.0239	2,188.0239	0.4885	0.0000	2,200.2363
2020	8.2889	13.1911	10.7013	0.0205	0.1450	0.6639	0.8088	0.0388	0.6355	0.6742	0.0000	1,919.5799	1,919.5799	0.3608	0.0000	1,928.5306
<b>Maximum</b>	<b>8.2889</b>	<b>19.3323</b>	<b>12.1768</b>	<b>0.0226</b>	<b>0.2091</b>	<b>0.9848</b>	<b>1.0998</b>	<b>0.0561</b>	<b>0.9272</b>	<b>0.9577</b>	<b>0.0000</b>	<b>2,188.0239</b>	<b>2,188.0239</b>	<b>0.4885</b>	<b>0.0000</b>	<b>2,200.2363</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.5346	9.4422	12.7362	0.0226	0.2091	0.5397	0.6847	0.0561	0.5396	0.5784	0.0000	2,188.0239	2,188.0239	0.4885	0.0000	2,200.2363
2020	8.1062	9.4145	11.4289	0.0205	0.1450	0.5391	0.6841	0.0388	0.5390	0.5777	0.0000	1,919.5799	1,919.5799	0.3608	0.0000	1,928.5306
<b>Maximum</b>	<b>8.1062</b>	<b>9.4422</b>	<b>12.7362</b>	<b>0.0226</b>	<b>0.2091</b>	<b>0.5397</b>	<b>0.6847</b>	<b>0.0561</b>	<b>0.5396</b>	<b>0.5784</b>	<b>0.0000</b>	<b>2,188.0239</b>	<b>2,188.0239</b>	<b>0.4885</b>	<b>0.0000</b>	<b>2,200.2363</b>

## Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.57	42.02	-5.63	0.00	0.00	34.56	28.28	0.00	30.98	29.16	0.00	0.00	0.00	0.00	0.00	0.00

Morena Pump Station - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4200e-003</b>

## Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/16/2020	6/24/2020	5	7	
2	Building Construction	Building Construction	10/8/2019	6/15/2020	5	180	
3	Demolition	Demolition	4/2/2019	6/3/2019	5	45	
4	Grading	Grading	6/4/2019	10/7/2019	5	90	
5	Paving	Paving	6/25/2020	7/14/2020	5	14	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,105; Non-Residential Outdoor: 3,035; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Morena Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	132	0.36
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
	Cranes	1	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Grading	Plate Compactors	2	8.00	8	0.43

**Trips and VMT**



Morena Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	16.00	0.00	400.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Water Exposed Area
- Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.2806</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.3100e-003	5.5500e-003	0.0535	1.6000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		15.8226	15.8226	4.8000e-004		15.8346
<b>Total</b>	<b>8.3100e-003</b>	<b>5.5500e-003</b>	<b>0.0535</b>	<b>1.6000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>15.8226</b>	<b>15.8226</b>	<b>4.8000e-004</b>		<b>15.8346</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	8.0384					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>8.0978</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	8.3100e-003	5.5500e-003	0.0535	1.6000e-004	0.0164	1.2000e-004	0.0165	4.3600e-003	1.1000e-004	4.4600e-003		15.8226	15.8226	4.8000e-004		15.8346
<b>Total</b>	<b>8.3100e-003</b>	<b>5.5500e-003</b>	<b>0.0535</b>	<b>1.6000e-004</b>	<b>0.0164</b>	<b>1.2000e-004</b>	<b>0.0165</b>	<b>4.3600e-003</b>	<b>1.1000e-004</b>	<b>4.4600e-003</b>		<b>15.8226</b>	<b>15.8226</b>	<b>4.8000e-004</b>		<b>15.8346</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6468	14.1218	10.4681	0.0187		0.7603	0.7603		0.7277	0.7277		1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>1.6468</b>	<b>14.1218</b>	<b>10.4681</b>	<b>0.0187</b>		<b>0.7603</b>	<b>0.7603</b>		<b>0.7277</b>	<b>0.7277</b>		<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,754.7919	1,754.7919	0.3580		1,763.7428
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,754.7919</b>	<b>1,754.7919</b>	<b>0.3580</b>		<b>1,763.7428</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0807</b>	<b>0.2974</b>	<b>0.5388</b>	<b>1.8500e-003</b>	<b>0.1450</b>	<b>2.7000e-003</b>	<b>0.1477</b>	<b>0.0388</b>	<b>2.5400e-003</b>	<b>0.0413</b>		<b>188.4063</b>	<b>188.4063</b>	<b>9.0800e-003</b>		<b>188.6333</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4831	12.9214	10.2100	0.0187		0.6618	0.6618		0.6335	0.6335		1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>1.4831</b>	<b>12.9214</b>	<b>10.2100</b>	<b>0.0187</b>		<b>0.6618</b>	<b>0.6618</b>		<b>0.6335</b>	<b>0.6335</b>		<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4539	9.1447	10.9376	0.0187		0.5371	0.5371		0.5371	0.5371	0.0000	1,735.7064	1,735.7064	0.3496		1,744.4466
<b>Total</b>	<b>0.4539</b>	<b>9.1447</b>	<b>10.9376</b>	<b>0.0187</b>		<b>0.5371</b>	<b>0.5371</b>		<b>0.5371</b>	<b>0.5371</b>	<b>0.0000</b>	<b>1,735.7064</b>	<b>1,735.7064</b>	<b>0.3496</b>		<b>1,744.4466</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0743</b>	<b>0.2698</b>	<b>0.4914</b>	<b>1.8000e-003</b>	<b>0.1450</b>	<b>2.0400e-003</b>	<b>0.1470</b>	<b>0.0388</b>	<b>1.9300e-003</b>	<b>0.0407</b>		<b>183.8736</b>	<b>183.8736</b>	<b>8.4200e-003</b>		<b>184.0841</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0057	19.2892	11.7675	0.0215		0.9840	0.9840		0.9265	0.9265		2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>2.0057</b>	<b>19.2892</b>	<b>11.7675</b>	<b>0.0215</b>		<b>0.9840</b>	<b>0.9840</b>		<b>0.9265</b>	<b>0.9265</b>		<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4620	9.3691	12.3268	0.0215		0.4728	0.4728		0.4728	0.4728	0.0000	2,073.6560	2,073.6560	0.4848		2,085.7761
<b>Total</b>	<b>0.4620</b>	<b>9.3691</b>	<b>12.3268</b>	<b>0.0215</b>		<b>0.4728</b>	<b>0.4728</b>		<b>0.4728</b>	<b>0.4728</b>	<b>0.0000</b>	<b>2,073.6560</b>	<b>2,073.6560</b>	<b>0.4848</b>		<b>2,085.7761</b>



Morena Pump Station - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7488	6.7973	7.4490	0.0128		0.3140	0.3140		0.2933	0.2933		1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.7488</b>	<b>6.7973</b>	<b>7.4490</b>	<b>0.0128</b>		<b>0.3140</b>	<b>0.3140</b>		<b>0.2933</b>	<b>0.2933</b>		<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0397	1.3487	0.3088	3.4700e-003	0.0777	5.1600e-003	0.0828	0.0213	4.9300e-003	0.0262		378.1817	378.1817	0.0353		379.0635
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1107</b>	<b>1.3979</b>	<b>0.7767</b>	<b>4.7800e-003</b>	<b>0.2091</b>	<b>6.1000e-003</b>	<b>0.2152</b>	<b>0.0561</b>	<b>5.7900e-003</b>	<b>0.0620</b>		<b>508.8879</b>	<b>508.8879</b>	<b>0.0395</b>		<b>509.8752</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2541	4.9134	7.8360	0.0128		0.2372	0.2372		0.2372	0.2372	0.0000	1,213.0906	1,213.0906	0.3437		1,221.6823
<b>Total</b>	<b>0.2541</b>	<b>4.9134</b>	<b>7.8360</b>	<b>0.0128</b>		<b>0.2372</b>	<b>0.2372</b>		<b>0.2372</b>	<b>0.2372</b>	<b>0.0000</b>	<b>1,213.0906</b>	<b>1,213.0906</b>	<b>0.3437</b>		<b>1,221.6823</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0397	1.3487	0.3088	3.4700e-003	0.0777	5.1600e-003	0.0828	0.0213	4.9300e-003	0.0262		378.1817	378.1817	0.0353		379.0635
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1107</b>	<b>1.3979</b>	<b>0.7767</b>	<b>4.7800e-003</b>	<b>0.2091</b>	<b>6.1000e-003</b>	<b>0.2152</b>	<b>0.0561</b>	<b>5.7900e-003</b>	<b>0.0620</b>		<b>508.8879</b>	<b>508.8879</b>	<b>0.0395</b>		<b>509.8752</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6783	7.0328	7.3260	0.0114		0.3764	0.3764		0.3463	0.3463		1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.6783</b>	<b>7.0328</b>	<b>7.3260</b>	<b>0.0114</b>		<b>0.3764</b>	<b>0.3764</b>		<b>0.3463</b>	<b>0.3463</b>		<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0665</b>	<b>0.0444</b>	<b>0.4276</b>	<b>1.2700e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>126.5811</b>	<b>126.5811</b>	<b>3.8100e-003</b>		<b>126.6764</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	5.6476	8.6478	0.0114		0.3047	0.3047		0.3047	0.3047	0.0000	1,103.8667	1,103.8667	0.3570		1,112.7920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2805</b>	<b>5.6476</b>	<b>8.6478</b>	<b>0.0114</b>		<b>0.3047</b>	<b>0.3047</b>		<b>0.3047</b>	<b>0.3047</b>	<b>0.0000</b>	<b>1,103.8667</b>	<b>1,103.8667</b>	<b>0.3570</b>		<b>1,112.7920</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0444	0.4276	1.2700e-003	0.1314	9.2000e-004	0.1324	0.0349	8.5000e-004	0.0357		126.5811	126.5811	3.8100e-003		126.6764
<b>Total</b>	<b>0.0665</b>	<b>0.0444</b>	<b>0.4276</b>	<b>1.2700e-003</b>	<b>0.1314</b>	<b>9.2000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.5000e-004</b>	<b>0.0357</b>		<b>126.5811</b>	<b>126.5811</b>	<b>3.8100e-003</b>		<b>126.6764</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Morena Pump Station - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior



Morena Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
Unmitigated	0.1454	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

Morena Pump Station - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0154					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.3300e-003	1.3300e-003	0.0000		1.4200e-003
<b>Total</b>	<b>0.1454</b>	<b>1.0000e-005</b>	<b>6.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>		<b>1.4200e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Morena Pump Station - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF IPS - San Diego County APCD Air District, Annual

**NCPWF IPS**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.70	1000sqft	0.15	6,700.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCPWF IPS - San Diego County APCD Air District, Annual

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading - See Section 7.2.1 for Construction Details.

Demolition - No demolition of structures anticipated.

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No mobile source emissions.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00



NCPWF IPS - San Diego County APCD Air District, Annual

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	NumDays	100.00	260.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	97.00
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	PhaseEndDate	1/6/2019	7/7/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	6/17/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	2/4/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	10/7/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/20/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	2/5/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	0.30
tblGrading	MaterialImported	0.00	943.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29

NCPWF IPS - San Diego County APCD Air District, Annual

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	8.31	0.29
tblTripsAndVMT	HaulingTripNumber	118.00	63.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	100.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00



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tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,549,375.00	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-7-2019	4-6-2019	0.6405	0.4921
2	4-7-2019	7-6-2019	0.5789	0.4506
3	7-7-2019	10-6-2019	0.6442	0.4735
4	10-7-2019	1-6-2020	0.6432	0.4750
5	1-7-2020	4-6-2020	0.5838	0.4524
6	4-7-2020	7-6-2020	0.5667	0.4433
7	7-7-2020	9-30-2020	0.2885	0.2163
		Highest	0.6442	0.4921

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1066</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1066</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

## NCPWF IPS - San Diego County APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/18/2020	7/7/2020	5	14	
2	Building Construction	Building Construction	6/20/2019	6/17/2020	5	260	
3	Demolition	Demolition	1/7/2019	2/4/2019	5	21	
4	Grading	Grading	2/5/2019	6/19/2019	5	97	
5	Paving	Paving	6/18/2020	10/7/2020	5	80	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0.3**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,050; Non-Residential Outdoor: 3,350; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## NCPWF IPS - San Diego County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Rubber Tired Dozers	1	1.00	247	0.40
	Cranes	2	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

NCPWF IPS - San Diego County APCD Air District, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	100.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	10.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0311					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-003	0.0118	0.0128	2.0000e-005		7.8000e-004	7.8000e-004		7.8000e-004	7.8000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907
<b>Total</b>	<b>0.0328</b>	<b>0.0118</b>	<b>0.0128</b>	<b>2.0000e-005</b>		<b>7.8000e-004</b>	<b>7.8000e-004</b>		<b>7.8000e-004</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>1.7873</b>	<b>1.7873</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.7907</b>

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**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1200e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3045	0.3045	1.0000e-005	0.0000	0.3047
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3045</b>	<b>0.3045</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3047</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0311					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	9.5000e-003	0.0128	2.0000e-005		6.7000e-004	6.7000e-004		6.7000e-004	6.7000e-004	0.0000	1.7873	1.7873	1.4000e-004	0.0000	1.7907
<b>Total</b>	<b>0.0315</b>	<b>9.5000e-003</b>	<b>0.0128</b>	<b>2.0000e-005</b>		<b>6.7000e-004</b>	<b>6.7000e-004</b>		<b>6.7000e-004</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>1.7873</b>	<b>1.7873</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.7907</b>



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**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.1000e-004	1.1200e-003	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3045	0.3045	1.0000e-005	0.0000	0.3047
<b>Total</b>	<b>1.5000e-004</b>	<b>1.1000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>3.4000e-004</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.3045</b>	<b>0.3045</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3047</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1312	1.1310	0.8527	1.4600e-003		0.0644	0.0644		0.0612	0.0612	0.0000	125.0281	125.0281	0.0271	0.0000	125.7062
<b>Total</b>	<b>0.1312</b>	<b>1.1310</b>	<b>0.8527</b>	<b>1.4600e-003</b>		<b>0.0644</b>	<b>0.0644</b>		<b>0.0612</b>	<b>0.0612</b>	<b>0.0000</b>	<b>125.0281</b>	<b>125.0281</b>	<b>0.0271</b>	<b>0.0000</b>	<b>125.7062</b>

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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9500e-003	0.0523	0.0141	1.1000e-004	2.7700e-003	3.6000e-004	3.1300e-003	8.0000e-004	3.5000e-004	1.1500e-003	0.0000	11.0788	11.0788	8.9000e-004	0.0000	11.1010
Worker	0.0274	0.0210	0.2034	5.8000e-004	0.0557	4.1000e-004	0.0561	0.0148	3.7000e-004	0.0152	0.0000	52.0205	52.0205	1.6700e-003	0.0000	52.0623
<b>Total</b>	<b>0.0294</b>	<b>0.0734</b>	<b>0.2174</b>	<b>6.9000e-004</b>	<b>0.0585</b>	<b>7.7000e-004</b>	<b>0.0593</b>	<b>0.0156</b>	<b>7.2000e-004</b>	<b>0.0163</b>	<b>0.0000</b>	<b>63.0993</b>	<b>63.0993</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>63.1633</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0607	0.8406	0.9002	1.4600e-003		0.0517	0.0517		0.0501	0.0501	0.0000	125.0279	125.0279	0.0271	0.0000	125.7061
<b>Total</b>	<b>0.0607</b>	<b>0.8406</b>	<b>0.9002</b>	<b>1.4600e-003</b>		<b>0.0517</b>	<b>0.0517</b>		<b>0.0501</b>	<b>0.0501</b>	<b>0.0000</b>	<b>125.0279</b>	<b>125.0279</b>	<b>0.0271</b>	<b>0.0000</b>	<b>125.7061</b>

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**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.9500e-003	0.0523	0.0141	1.1000e-004	2.7700e-003	3.6000e-004	3.1300e-003	8.0000e-004	3.5000e-004	1.1500e-003	0.0000	11.0788	11.0788	8.9000e-004	0.0000	11.1010
Worker	0.0274	0.0210	0.2034	5.8000e-004	0.0557	4.1000e-004	0.0561	0.0148	3.7000e-004	0.0152	0.0000	52.0205	52.0205	1.6700e-003	0.0000	52.0623
<b>Total</b>	<b>0.0294</b>	<b>0.0734</b>	<b>0.2174</b>	<b>6.9000e-004</b>	<b>0.0585</b>	<b>7.7000e-004</b>	<b>0.0593</b>	<b>0.0156</b>	<b>7.2000e-004</b>	<b>0.0163</b>	<b>0.0000</b>	<b>63.0993</b>	<b>63.0993</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>63.1633</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1029	0.9000	0.7254	1.2700e-003		0.0488	0.0488		0.0464	0.0464	0.0000	107.5175	107.5175	0.0232	0.0000	108.0963
<b>Total</b>	<b>0.1029</b>	<b>0.9000</b>	<b>0.7254</b>	<b>1.2700e-003</b>		<b>0.0488</b>	<b>0.0488</b>		<b>0.0464</b>	<b>0.0464</b>	<b>0.0000</b>	<b>107.5175</b>	<b>107.5175</b>	<b>0.0232</b>	<b>0.0000</b>	<b>108.0963</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0414	0.0110	1.0000e-004	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.9000e-004	0.0000	9.5782	9.5782	7.3000e-004	0.0000	9.5965
Worker	0.0223	0.0165	0.1619	4.9000e-004	0.0485	3.5000e-004	0.0489	0.0129	3.2000e-004	0.0132	0.0000	43.8550	43.8550	1.3200e-003	0.0000	43.8879
<b>Total</b>	<b>0.0237</b>	<b>0.0579</b>	<b>0.1729</b>	<b>5.9000e-004</b>	<b>0.0509</b>	<b>5.5000e-004</b>	<b>0.0515</b>	<b>0.0136</b>	<b>5.1000e-004</b>	<b>0.0141</b>	<b>0.0000</b>	<b>53.4331</b>	<b>53.4331</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>53.4844</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0502	0.7081	0.7812	1.2700e-003		0.0426	0.0426		0.0413	0.0413	0.0000	107.5174	107.5174	0.0232	0.0000	108.0962
<b>Total</b>	<b>0.0502</b>	<b>0.7081</b>	<b>0.7812</b>	<b>1.2700e-003</b>		<b>0.0426</b>	<b>0.0426</b>		<b>0.0413</b>	<b>0.0413</b>	<b>0.0000</b>	<b>107.5174</b>	<b>107.5174</b>	<b>0.0232</b>	<b>0.0000</b>	<b>108.0962</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3800e-003	0.0414	0.0110	1.0000e-004	2.4100e-003	2.0000e-004	2.6100e-003	7.0000e-004	1.9000e-004	8.9000e-004	0.0000	9.5782	9.5782	7.3000e-004	0.0000	9.5965
Worker	0.0223	0.0165	0.1619	4.9000e-004	0.0485	3.5000e-004	0.0489	0.0129	3.2000e-004	0.0132	0.0000	43.8550	43.8550	1.3200e-003	0.0000	43.8879
<b>Total</b>	<b>0.0237</b>	<b>0.0579</b>	<b>0.1729</b>	<b>5.9000e-004</b>	<b>0.0509</b>	<b>5.5000e-004</b>	<b>0.0515</b>	<b>0.0136</b>	<b>5.1000e-004</b>	<b>0.0141</b>	<b>0.0000</b>	<b>53.4331</b>	<b>53.4331</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>53.4844</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0247	0.2394	0.1598	2.7000e-004		0.0128	0.0128		0.0120	0.0120	0.0000	24.1467	24.1467	6.0100e-003	0.0000	24.2969
<b>Total</b>	<b>0.0247</b>	<b>0.2394</b>	<b>0.1598</b>	<b>2.7000e-004</b>		<b>0.0128</b>	<b>0.0128</b>		<b>0.0120</b>	<b>0.0120</b>	<b>0.0000</b>	<b>24.1467</b>	<b>24.1467</b>	<b>6.0100e-003</b>	<b>0.0000</b>	<b>24.2969</b>

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**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0148	0.1797	0.1637	2.7000e-004		9.7700e-003	9.7700e-003		9.3600e-003	9.3600e-003	0.0000	24.1467	24.1467	6.0100e-003	0.0000	24.2969
<b>Total</b>	<b>0.0148</b>	<b>0.1797</b>	<b>0.1637</b>	<b>2.7000e-004</b>		<b>9.7700e-003</b>	<b>9.7700e-003</b>		<b>9.3600e-003</b>	<b>9.3600e-003</b>	<b>0.0000</b>	<b>24.1467</b>	<b>24.1467</b>	<b>6.0100e-003</b>	<b>0.0000</b>	<b>24.2969</b>

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**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0367	0.0000	0.0367	0.0201	0.0000	0.0201	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0827	0.7483	0.7359	1.2000e-003		0.0413	0.0413		0.0391	0.0391	0.0000	104.6221	104.6221	0.0249	0.0000	105.2451
<b>Total</b>	<b>0.0827</b>	<b>0.7483</b>	<b>0.7359</b>	<b>1.2000e-003</b>	<b>0.0367</b>	<b>0.0413</b>	<b>0.0781</b>	<b>0.0201</b>	<b>0.0391</b>	<b>0.0592</b>	<b>0.0000</b>	<b>104.6221</b>	<b>104.6221</b>	<b>0.0249</b>	<b>0.0000</b>	<b>105.2451</b>

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**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	9.6500e-003	2.1100e-003	2.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.4557	2.4557	2.2000e-004	0.0000	2.4613
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	1.4700e-003	0.0142	4.0000e-005	3.8900e-003	3.0000e-005	3.9200e-003	1.0300e-003	3.0000e-005	1.0600e-003	0.0000	3.6302	3.6302	1.2000e-004	0.0000	3.6331
<b>Total</b>	<b>2.1900e-003</b>	<b>0.0111</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.4300e-003</b>	<b>7.0000e-005</b>	<b>4.5000e-003</b>	<b>1.1800e-003</b>	<b>6.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>6.0859</b>	<b>6.0859</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>6.0944</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0165	0.0000	0.0165	9.0400e-003	0.0000	9.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.6077	0.7600	1.2000e-003		0.0352	0.0352		0.0343	0.0343	0.0000	104.6220	104.6220	0.0249	0.0000	105.2450
<b>Total</b>	<b>0.0458</b>	<b>0.6077</b>	<b>0.7600</b>	<b>1.2000e-003</b>	<b>0.0165</b>	<b>0.0352</b>	<b>0.0517</b>	<b>9.0400e-003</b>	<b>0.0343</b>	<b>0.0433</b>	<b>0.0000</b>	<b>104.6220</b>	<b>104.6220</b>	<b>0.0249</b>	<b>0.0000</b>	<b>105.2450</b>



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**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	9.6500e-003	2.1100e-003	2.0000e-005	5.4000e-004	4.0000e-005	5.8000e-004	1.5000e-004	3.0000e-005	1.8000e-004	0.0000	2.4557	2.4557	2.2000e-004	0.0000	2.4613
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9100e-003	1.4700e-003	0.0142	4.0000e-005	3.8900e-003	3.0000e-005	3.9200e-003	1.0300e-003	3.0000e-005	1.0600e-003	0.0000	3.6302	3.6302	1.2000e-004	0.0000	3.6331
<b>Total</b>	<b>2.1900e-003</b>	<b>0.0111</b>	<b>0.0163</b>	<b>6.0000e-005</b>	<b>4.4300e-003</b>	<b>7.0000e-005</b>	<b>4.5000e-003</b>	<b>1.1800e-003</b>	<b>6.0000e-005</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>6.0859</b>	<b>6.0859</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>6.0944</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.3321	0.3185	5.2000e-004		0.0179	0.0179		0.0166	0.0166	0.0000	43.0006	43.0006	0.0122	0.0000	43.3061
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0362</b>	<b>0.3321</b>	<b>0.3185</b>	<b>5.2000e-004</b>		<b>0.0179</b>	<b>0.0179</b>		<b>0.0166</b>	<b>0.0166</b>	<b>0.0000</b>	<b>43.0006</b>	<b>43.0006</b>	<b>0.0122</b>	<b>0.0000</b>	<b>43.3061</b>

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**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.9600e-003	0.0193	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.2191	5.2191	1.6000e-004	0.0000	5.2230
<b>Total</b>	<b>2.6500e-003</b>	<b>1.9600e-003</b>	<b>0.0193</b>	<b>6.0000e-005</b>	<b>5.7700e-003</b>	<b>4.0000e-005</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>5.2191</b>	<b>5.2191</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>5.2230</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0194	0.2551	0.3316	5.2000e-004		0.0144	0.0144		0.0141	0.0141	0.0000	43.0005	43.0005	0.0122	0.0000	43.3061
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0194</b>	<b>0.2551</b>	<b>0.3316</b>	<b>5.2000e-004</b>		<b>0.0144</b>	<b>0.0144</b>		<b>0.0141</b>	<b>0.0141</b>	<b>0.0000</b>	<b>43.0005</b>	<b>43.0005</b>	<b>0.0122</b>	<b>0.0000</b>	<b>43.3061</b>

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**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	1.9600e-003	0.0193	6.0000e-005	5.7700e-003	4.0000e-005	5.8200e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.2191	5.2191	1.6000e-004	0.0000	5.2230
<b>Total</b>	<b>2.6500e-003</b>	<b>1.9600e-003</b>	<b>0.0193</b>	<b>6.0000e-005</b>	<b>5.7700e-003</b>	<b>4.0000e-005</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>4.0000e-005</b>	<b>1.5700e-003</b>	<b>0.0000</b>	<b>5.2191</b>	<b>5.2191</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>5.2230</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCPWF IPS - San Diego County APCD Air District, Annual

**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCPWF IPS - San Diego County APCD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Unmitigated	0.0293	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3000e-004</b>



NCPWF IPS - San Diego County APCD Air District, Annual

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
<b>Total</b>	<b>0.0293</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

NCPWF IPS - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

NCPWF IPS - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

NCPWF IPS - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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NCPWF IPS - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF IPS - San Diego County APCD Air District, Summer

**NCPWF IPS**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.70	1000sqft	0.15	6,700.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCPWF IPS - San Diego County APCD Air District, Summer

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading - See Section 7.2.1 for Construction Details.

Demolition - No demolition of structures anticipated.

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No mobile source emissions.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00





NCPWF IPS - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	NumDays	100.00	260.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	97.00
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	PhaseEndDate	1/6/2019	7/7/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	6/17/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	2/4/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	10/7/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/20/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	2/5/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	0.30
tblGrading	MaterialImported	0.00	943.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29

NCPWF IPS - San Diego County APCD Air District, Summer

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	8.31	0.29
tblTripsAndVMT	HaulingTripNumber	118.00	63.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	100.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00

## NCPWF IPS - San Diego County APCD Air District, Summer

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,549,375.00	10,400.00

## 2.0 Emissions Summary

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NCPWF IPS - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

NCPWF IPS - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/18/2020	7/7/2020	5	14	
2	Building Construction	Building Construction	6/20/2019	6/17/2020	5	260	
3	Demolition	Demolition	1/7/2019	2/4/2019	5	21	
4	Grading	Grading	2/5/2019	6/19/2019	5	97	
5	Paving	Paving	6/18/2020	10/7/2020	5	80	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,050; Non-Residential Outdoor: 3,350; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## NCPWF IPS - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Rubber Tired Dozers	1	1.00	247	0.40
	Cranes	2	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

NCPWF IPS - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	100.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	10.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.6785</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>



NCPWF IPS - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>0.0220</b>	<b>0.0148</b>	<b>0.1701</b>	<b>5.1000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>50.5648</b>	<b>50.5648</b>	<b>1.5100e-003</b>		<b>50.6026</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.4958</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>0.0220</b>	<b>0.0148</b>	<b>0.1701</b>	<b>5.1000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>50.5648</b>	<b>50.5648</b>	<b>1.5100e-003</b>		<b>50.6026</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8877	16.2737	12.2687	0.0210		0.9270	0.9270		0.8810	0.8810		1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>1.8877</b>	<b>16.2737</b>	<b>12.2687</b>	<b>0.0210</b>		<b>0.9270</b>	<b>0.9270</b>		<b>0.8810</b>	<b>0.8810</b>		<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0276	0.7439	0.1921	1.6600e-003	0.0406	5.1800e-003	0.0458	0.0117	4.9500e-003	0.0166		177.6100	177.6100	0.0137		177.9528
Worker	0.3927	0.2740	3.0941	8.7400e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		870.1996	870.1996	0.0278		870.8943
<b>Total</b>	<b>0.4203</b>	<b>1.0180</b>	<b>3.2862</b>	<b>0.0104</b>	<b>0.8621</b>	<b>0.0110</b>	<b>0.8731</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2399</b>		<b>1,047.8096</b>	<b>1,047.8096</b>	<b>0.0415</b>		<b>1,048.8471</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8729	12.0953	12.9520	0.0210		0.7440	0.7440		0.7203	0.7203	0.0000	1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>0.8729</b>	<b>12.0953</b>	<b>12.9520</b>	<b>0.0210</b>		<b>0.7440</b>	<b>0.7440</b>		<b>0.7203</b>	<b>0.7203</b>	<b>0.0000</b>	<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0276	0.7439	0.1921	1.6600e-003	0.0406	5.1800e-003	0.0458	0.0117	4.9500e-003	0.0166		177.6100	177.6100	0.0137		177.9528
Worker	0.3927	0.2740	3.0941	8.7400e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		870.1996	870.1996	0.0278		870.8943
<b>Total</b>	<b>0.4203</b>	<b>1.0180</b>	<b>3.2862</b>	<b>0.0104</b>	<b>0.8621</b>	<b>0.0110</b>	<b>0.8731</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2399</b>		<b>1,047.8096</b>	<b>1,047.8096</b>	<b>0.0415</b>		<b>1,048.8471</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7000	14.8762	11.9896	0.0210		0.8073	0.8073		0.7674	0.7674		1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>1.7000</b>	<b>14.8762</b>	<b>11.9896</b>	<b>0.0210</b>		<b>0.8073</b>	<b>0.8073</b>		<b>0.7674</b>	<b>0.7674</b>		<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0224	0.6766	0.1724	1.6400e-003	0.0406	3.3100e-003	0.0439	0.0117	3.1700e-003	0.0149		176.4241	176.4241	0.0130		176.7494
Worker	0.3670	0.2472	2.8346	8.4600e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		842.7471	842.7471	0.0252		843.3762
<b>Total</b>	<b>0.3894</b>	<b>0.9238</b>	<b>3.0070</b>	<b>0.0101</b>	<b>0.8621</b>	<b>9.0700e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.4800e-003</b>	<b>0.2381</b>		<b>1,019.1711</b>	<b>1,019.1711</b>	<b>0.0382</b>		<b>1,020.1256</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8294	11.7040	12.9118	0.0210		0.7037	0.7037		0.6832	0.6832	0.0000	1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>0.8294</b>	<b>11.7040</b>	<b>12.9118</b>	<b>0.0210</b>		<b>0.7037</b>	<b>0.7037</b>		<b>0.6832</b>	<b>0.6832</b>	<b>0.0000</b>	<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0224	0.6766	0.1724	1.6400e-003	0.0406	3.3100e-003	0.0439	0.0117	3.1700e-003	0.0149		176.4241	176.4241	0.0130		176.7494
Worker	0.3670	0.2472	2.8346	8.4600e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		842.7471	842.7471	0.0252		843.3762
<b>Total</b>	<b>0.3894</b>	<b>0.9238</b>	<b>3.0070</b>	<b>0.0101</b>	<b>0.8621</b>	<b>9.0700e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.4800e-003</b>	<b>0.2381</b>		<b>1,019.1711</b>	<b>1,019.1711</b>	<b>0.0382</b>		<b>1,020.1256</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3550	22.7953	15.2215	0.0261		1.2180	1.2180		1.1418	1.1418		2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>2.3550</b>	<b>22.7953</b>	<b>15.2215</b>	<b>0.0261</b>		<b>1.2180</b>	<b>1.2180</b>		<b>1.1418</b>	<b>1.1418</b>		<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4047	17.1119	15.5888	0.0261		0.9308	0.9308		0.8916	0.8916	0.0000	2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>1.4047</b>	<b>17.1119</b>	<b>15.5888</b>	<b>0.0261</b>		<b>0.9308</b>	<b>0.9308</b>		<b>0.8916</b>	<b>0.8916</b>	<b>0.0000</b>	<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0393</b>	<b>0.0274</b>	<b>0.3094</b>	<b>8.7000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>87.0200</b>	<b>87.0200</b>	<b>2.7800e-003</b>		<b>87.0894</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7574	0.0000	0.7574	0.4143	0.0000	0.4143			0.0000			0.0000
Off-Road	1.7044	15.4281	15.1734	0.0248		0.8524	0.8524		0.8070	0.8070		2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>1.7044</b>	<b>15.4281</b>	<b>15.1734</b>	<b>0.0248</b>	<b>0.7574</b>	<b>0.8524</b>	<b>1.6098</b>	<b>0.4143</b>	<b>0.8070</b>	<b>1.2213</b>		<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>



NCPWF IPS - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6400e-003	0.1951	0.0421	5.2000e-004	0.0114	7.4000e-004	0.0121	3.1100e-003	7.0000e-004	3.8100e-003		56.2111	56.2111	4.9700e-003		56.3355
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0449</b>	<b>0.2225</b>	<b>0.3515</b>	<b>1.3900e-003</b>	<b>0.0935</b>	<b>1.3300e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2400e-003</b>	<b>0.0261</b>		<b>143.2311</b>	<b>143.2311</b>	<b>7.7500e-003</b>		<b>143.4249</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3408	0.0000	0.3408	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.9445	12.5296	15.6700	0.0248		0.7254	0.7254		0.7067	0.7067	0.0000	2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>0.9445</b>	<b>12.5296</b>	<b>15.6700</b>	<b>0.0248</b>	<b>0.3408</b>	<b>0.7254</b>	<b>1.0662</b>	<b>0.1865</b>	<b>0.7067</b>	<b>0.8932</b>	<b>0.0000</b>	<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6400e-003	0.1951	0.0421	5.2000e-004	0.0114	7.4000e-004	0.0121	3.1100e-003	7.0000e-004	3.8100e-003		56.2111	56.2111	4.9700e-003		56.3355
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0393	0.0274	0.3094	8.7000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		87.0200	87.0200	2.7800e-003		87.0894
<b>Total</b>	<b>0.0449</b>	<b>0.2225</b>	<b>0.3515</b>	<b>1.3900e-003</b>	<b>0.0935</b>	<b>1.3300e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2400e-003</b>	<b>0.0261</b>		<b>143.2311</b>	<b>143.2311</b>	<b>7.7500e-003</b>		<b>143.4249</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9039	8.3029	7.9626	0.0129		0.4464	0.4464		0.4155	0.4155		1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9039</b>	<b>8.3029</b>	<b>7.9626</b>	<b>0.0129</b>		<b>0.4464</b>	<b>0.4464</b>		<b>0.4155</b>	<b>0.4155</b>		<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4855	6.3769	8.2906	0.0129		0.3600	0.3600		0.3522	0.3522	0.0000	1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4855</b>	<b>6.3769</b>	<b>8.2906</b>	<b>0.0129</b>		<b>0.3600</b>	<b>0.3600</b>		<b>0.3522</b>	<b>0.3522</b>	<b>0.0000</b>	<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Summer

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF IPS - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

NCPWF IPS - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

NCPWF IPS - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCPWF IPS - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Unmitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>



NCPWF IPS - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF IPS - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF IPS - San Diego County APCD Air District, Winter

**NCPWF IPS**

**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.70	1000sqft	0.15	6,700.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCPWF IPS - San Diego County APCD Air District, Winter

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Grading - See Section 7.2.1 for Construction Details.

Demolition - No demolition of structures anticipated.

Trips and VMT - See Section 7.2.1 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - No mobile source emissions.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment will be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00



NCPWF IPS - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	5.00	14.00
tblConstructionPhase	NumDays	100.00	260.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	97.00
tblConstructionPhase	NumDays	5.00	80.00
tblConstructionPhase	PhaseEndDate	1/6/2019	7/7/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	6/17/2020
tblConstructionPhase	PhaseEndDate	1/6/2019	2/4/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	1/6/2019	10/7/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblConstructionPhase	PhaseStartDate	1/7/2019	6/20/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	2/5/2019
tblConstructionPhase	PhaseStartDate	1/7/2019	6/18/2020
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	0.30
tblGrading	MaterialImported	0.00	943.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.29	0.29

NCPWF IPS - San Diego County APCD Air District, Winter

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblSolidWaste	SolidWasteGenerationRate	8.31	0.29
tblTripsAndVMT	HaulingTripNumber	118.00	63.00
tblTripsAndVMT	VendorTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	1.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	100.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	25.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	18.00

## NCPWF IPS - San Diego County APCD Air District, Winter

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,549,375.00	10,400.00

## 2.0 Emissions Summary

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NCPWF IPS - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5600e-003</b>

## NCPWF IPS - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/18/2020	7/7/2020	5	14	
2	Building Construction	Building Construction	6/20/2019	6/17/2020	5	260	
3	Demolition	Demolition	1/7/2019	2/4/2019	5	21	
4	Grading	Grading	2/5/2019	6/19/2019	5	97	
5	Paving	Paving	6/18/2020	10/7/2020	5	80	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,050; Non-Residential Outdoor: 3,350; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## NCPWF IPS - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Dumpers/Tenders	1	8.00	16	0.38
Demolition	Dumpers/Tenders	2	8.00	16	0.38
Demolition	Excavators	1	8.00	158	0.38
	Air Compressors	1	8.00	78	0.48
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Dumpers/Tenders	2	8.00	16	0.38
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Rubber Tired Dozers	1	1.00	247	0.40
	Cranes	2	8.00	231	0.29
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

**Trips and VMT**

NCPWF IPS - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	100.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	7	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	10.00	0.00	63.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Architectural Coating - 2020**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.6785</b>	<b>1.6838</b>	<b>1.8314</b>	<b>2.9700e-003</b>		<b>0.1109</b>	<b>0.1109</b>		<b>0.1109</b>	<b>0.1109</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>0.0249</b>	<b>0.0167</b>	<b>0.1604</b>	<b>4.8000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>47.4679</b>	<b>47.4679</b>	<b>1.4300e-003</b>		<b>47.5037</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
<b>Total</b>	<b>4.4958</b>	<b>1.3570</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0218</b>		<b>281.9928</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.2 Architectural Coating - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>0.0249</b>	<b>0.0167</b>	<b>0.1604</b>	<b>4.8000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>47.4679</b>	<b>47.4679</b>	<b>1.4300e-003</b>		<b>47.5037</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8877	16.2737	12.2687	0.0210		0.9270	0.9270		0.8810	0.8810		1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>1.8877</b>	<b>16.2737</b>	<b>12.2687</b>	<b>0.0210</b>		<b>0.9270</b>	<b>0.9270</b>		<b>0.8810</b>	<b>0.8810</b>		<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7445	0.2129	1.6200e-003	0.0406	5.2700e-003	0.0459	0.0117	5.0400e-003	0.0167		173.1002	173.1002	0.0146		173.4648
Worker	0.4441	0.3078	2.9239	8.2000e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		816.9138	816.9138	0.0264		817.5727
<b>Total</b>	<b>0.4729</b>	<b>1.0523</b>	<b>3.1369</b>	<b>9.8200e-003</b>	<b>0.8621</b>	<b>0.0111</b>	<b>0.8732</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2400</b>		<b>990.0139</b>	<b>990.0139</b>	<b>0.0410</b>		<b>991.0376</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8729	12.0953	12.9520	0.0210		0.7440	0.7440		0.7203	0.7203	0.0000	1,983.0193	1,983.0193	0.4303		1,993.7754
<b>Total</b>	<b>0.8729</b>	<b>12.0953</b>	<b>12.9520</b>	<b>0.0210</b>		<b>0.7440</b>	<b>0.7440</b>		<b>0.7203</b>	<b>0.7203</b>	<b>0.0000</b>	<b>1,983.0193</b>	<b>1,983.0193</b>	<b>0.4303</b>		<b>1,993.7754</b>



NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0288	0.7445	0.2129	1.6200e-003	0.0406	5.2700e-003	0.0459	0.0117	5.0400e-003	0.0167		173.1002	173.1002	0.0146		173.4648
Worker	0.4441	0.3078	2.9239	8.2000e-003	0.8215	5.8600e-003	0.8273	0.2179	5.4000e-003	0.2233		816.9138	816.9138	0.0264		817.5727
<b>Total</b>	<b>0.4729</b>	<b>1.0523</b>	<b>3.1369</b>	<b>9.8200e-003</b>	<b>0.8621</b>	<b>0.0111</b>	<b>0.8732</b>	<b>0.2296</b>	<b>0.0104</b>	<b>0.2400</b>		<b>990.0139</b>	<b>990.0139</b>	<b>0.0410</b>		<b>991.0376</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7000	14.8762	11.9896	0.0210		0.8073	0.8073		0.7674	0.7674		1,958.9720	1,958.9720	0.4218		1,969.5173
<b>Total</b>	<b>1.7000</b>	<b>14.8762</b>	<b>11.9896</b>	<b>0.0210</b>		<b>0.8073</b>	<b>0.8073</b>		<b>0.7674</b>	<b>0.7674</b>		<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>		<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0235	0.6760	0.1913	1.6000e-003	0.0406	3.3700e-003	0.0440	0.0117	3.2300e-003	0.0149		171.8773	171.8773	0.0138			172.2231
Worker	0.4156	0.2776	2.6725	7.9400e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		791.1320	791.1320	0.0238			791.7274
<b>Total</b>	<b>0.4391</b>	<b>0.9536</b>	<b>2.8638</b>	<b>9.5400e-003</b>	<b>0.8621</b>	<b>9.1300e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.5400e-003</b>	<b>0.2381</b>		<b>963.0093</b>	<b>963.0093</b>	<b>0.0377</b>			<b>963.9505</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.8294	11.7040	12.9118	0.0210		0.7037	0.7037		0.6832	0.6832	0.0000	1,958.9720	1,958.9720	0.4218			1,969.5173
<b>Total</b>	<b>0.8294</b>	<b>11.7040</b>	<b>12.9118</b>	<b>0.0210</b>		<b>0.7037</b>	<b>0.7037</b>		<b>0.6832</b>	<b>0.6832</b>	<b>0.0000</b>	<b>1,958.9720</b>	<b>1,958.9720</b>	<b>0.4218</b>			<b>1,969.5173</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0235	0.6760	0.1913	1.6000e-003	0.0406	3.3700e-003	0.0440	0.0117	3.2300e-003	0.0149		171.8773	171.8773	0.0138		172.2231
Worker	0.4156	0.2776	2.6725	7.9400e-003	0.8215	5.7600e-003	0.8272	0.2179	5.3100e-003	0.2232		791.1320	791.1320	0.0238		791.7274
<b>Total</b>	<b>0.4391</b>	<b>0.9536</b>	<b>2.8638</b>	<b>9.5400e-003</b>	<b>0.8621</b>	<b>9.1300e-003</b>	<b>0.8712</b>	<b>0.2296</b>	<b>8.5400e-003</b>	<b>0.2381</b>		<b>963.0093</b>	<b>963.0093</b>	<b>0.0377</b>		<b>963.9505</b>

**3.4 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3550	22.7953	15.2215	0.0261		1.2180	1.2180		1.1418	1.1418		2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>2.3550</b>	<b>22.7953</b>	<b>15.2215</b>	<b>0.0261</b>		<b>1.2180</b>	<b>1.2180</b>		<b>1.1418</b>	<b>1.1418</b>		<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4047	17.1119	15.5888	0.0261		0.9308	0.9308		0.8916	0.8916	0.0000	2,534.9688	2,534.9688	0.6308		2,550.7378
<b>Total</b>	<b>1.4047</b>	<b>17.1119</b>	<b>15.5888</b>	<b>0.0261</b>		<b>0.9308</b>	<b>0.9308</b>		<b>0.8916</b>	<b>0.8916</b>	<b>0.0000</b>	<b>2,534.9688</b>	<b>2,534.9688</b>	<b>0.6308</b>		<b>2,550.7378</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.4 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0444</b>	<b>0.0308</b>	<b>0.2924</b>	<b>8.2000e-004</b>	<b>0.0822</b>	<b>5.9000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.4000e-004</b>	<b>0.0223</b>		<b>81.6914</b>	<b>81.6914</b>	<b>2.6400e-003</b>		<b>81.7573</b>

**3.5 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7574	0.0000	0.7574	0.4143	0.0000	0.4143			0.0000			0.0000
Off-Road	1.7044	15.4281	15.1734	0.0248		0.8524	0.8524		0.8070	0.8070		2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>1.7044</b>	<b>15.4281</b>	<b>15.1734</b>	<b>0.0248</b>	<b>0.7574</b>	<b>0.8524</b>	<b>1.6098</b>	<b>0.4143</b>	<b>0.8070</b>	<b>1.2213</b>		<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8000e-003	0.1971	0.0451	5.1000e-004	0.0114	7.5000e-004	0.0121	3.1100e-003	7.2000e-004	3.8300e-003		55.2652	55.2652	5.1500e-003		55.3941
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0502</b>	<b>0.2279</b>	<b>0.3375</b>	<b>1.3300e-003</b>	<b>0.0935</b>	<b>1.3400e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2600e-003</b>	<b>0.0262</b>		<b>136.9566</b>	<b>136.9566</b>	<b>7.7900e-003</b>		<b>137.1514</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3408	0.0000	0.3408	0.1865	0.0000	0.1865			0.0000			0.0000
Off-Road	0.9445	12.5296	15.6700	0.0248		0.7254	0.7254		0.7067	0.7067	0.0000	2,377.8589	2,377.8589	0.5664		2,392.0187
<b>Total</b>	<b>0.9445</b>	<b>12.5296</b>	<b>15.6700</b>	<b>0.0248</b>	<b>0.3408</b>	<b>0.7254</b>	<b>1.0662</b>	<b>0.1865</b>	<b>0.7067</b>	<b>0.8932</b>	<b>0.0000</b>	<b>2,377.8589</b>	<b>2,377.8589</b>	<b>0.5664</b>		<b>2,392.0187</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.5 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.8000e-003	0.1971	0.0451	5.1000e-004	0.0114	7.5000e-004	0.0121	3.1100e-003	7.2000e-004	3.8300e-003		55.2652	55.2652	5.1500e-003		55.3941
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0308	0.2924	8.2000e-004	0.0822	5.9000e-004	0.0827	0.0218	5.4000e-004	0.0223		81.6914	81.6914	2.6400e-003		81.7573
<b>Total</b>	<b>0.0502</b>	<b>0.2279</b>	<b>0.3375</b>	<b>1.3300e-003</b>	<b>0.0935</b>	<b>1.3400e-003</b>	<b>0.0948</b>	<b>0.0249</b>	<b>1.2600e-003</b>	<b>0.0262</b>		<b>136.9566</b>	<b>136.9566</b>	<b>7.7900e-003</b>		<b>137.1514</b>

**3.6 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9039	8.3029	7.9626	0.0129		0.4464	0.4464		0.4155	0.4155		1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9039</b>	<b>8.3029</b>	<b>7.9626</b>	<b>0.0129</b>		<b>0.4464</b>	<b>0.4464</b>		<b>0.4155</b>	<b>0.4155</b>		<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4855	6.3769	8.2906	0.0129		0.3600	0.3600		0.3522	0.3522	0.0000	1,185.0002	1,185.0002	0.3368		1,193.4204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4855</b>	<b>6.3769</b>	<b>8.2906</b>	<b>0.0129</b>		<b>0.3600</b>	<b>0.3600</b>		<b>0.3522</b>	<b>0.3522</b>	<b>0.0000</b>	<b>1,185.0002</b>	<b>1,185.0002</b>	<b>0.3368</b>		<b>1,193.4204</b>



NCPWF IPS - San Diego County APCD Air District, Winter

**3.6 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF IPS - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

NCPWF IPS - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

NCPWF IPS - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCPWF IPS - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
Unmitigated	0.1605	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

NCPWF IPS - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4700e-003	1.4700e-003	0.0000		1.5600e-003
<b>Total</b>	<b>0.1605</b>	<b>1.0000e-005</b>	<b>6.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.4700e-003</b>	<b>1.4700e-003</b>	<b>0.0000</b>		<b>1.5600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF IPS - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**NCPWF Pipeline-Open Trench**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	320.54	1000sqft	7.36	320,535.24	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.



## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.





NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblOffRoadEquipment	PhaseName		Tunneling
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	397.47	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,537.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	74,124,875.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0693	0.6169	0.4900	1.0200e-003	0.0302	0.0312	0.0613	6.7200e-003	0.0293	0.0361	0.0000	92.1053	92.1053	0.0206	0.0000	92.6191
2019	0.4878	4.2617	3.5616	7.6300e-003	0.0694	0.2085	0.2779	0.0175	0.1974	0.2149	0.0000	677.6122	677.6122	0.1532	0.0000	681.4413
2020	0.4091	3.7641	3.2287	5.9500e-003	0.0333	0.1956	0.2290	8.8500e-003	0.1838	0.1926	0.0000	517.3154	517.3154	0.1274	0.0000	520.5000
2021	0.2731	2.4184	2.4939	4.6700e-003	0.0273	0.1262	0.1535	7.2400e-003	0.1181	0.1253	0.0000	409.4421	409.4421	0.1068	0.0000	412.1115
<b>Maximum</b>	<b>0.4878</b>	<b>4.2617</b>	<b>3.5616</b>	<b>7.6300e-003</b>	<b>0.0694</b>	<b>0.2085</b>	<b>0.2779</b>	<b>0.0175</b>	<b>0.1974</b>	<b>0.2149</b>	<b>0.0000</b>	<b>677.6122</b>	<b>677.6122</b>	<b>0.1532</b>	<b>0.0000</b>	<b>681.4413</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0250	0.4770	0.5513	1.0200e-003	0.0261	0.0229	0.0490	6.2100e-003	0.0229	0.0291	0.0000	92.1052	92.1052	0.0206	0.0000	92.6190
2019	0.1901	3.5757	4.2110	7.6300e-003	0.0653	0.1780	0.2432	0.0170	0.1779	0.1949	0.0000	677.6115	677.6115	0.1532	0.0000	681.4406
2020	0.1512	2.7734	3.8156	5.9500e-003	0.0333	0.1491	0.1824	8.8500e-003	0.1491	0.1579	0.0000	517.3148	517.3148	0.1274	0.0000	520.4994
2021	0.1151	2.1922	3.0019	4.6700e-003	0.0273	0.1227	0.1500	7.2400e-003	0.1227	0.1300	0.0000	409.4416	409.4416	0.1068	0.0000	412.1110
<b>Maximum</b>	<b>0.1901</b>	<b>3.5757</b>	<b>4.2110</b>	<b>7.6300e-003</b>	<b>0.0653</b>	<b>0.1780</b>	<b>0.2432</b>	<b>0.0170</b>	<b>0.1779</b>	<b>0.1949</b>	<b>0.0000</b>	<b>677.6115</b>	<b>677.6115</b>	<b>0.1532</b>	<b>0.0000</b>	<b>681.4406</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>61.16</b>	<b>18.47</b>	<b>-18.47</b>	<b>0.00</b>	<b>5.12</b>	<b>15.82</b>	<b>13.45</b>	<b>2.51</b>	<b>10.60</b>	<b>10.03</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-14-2018	2-13-2019	1.2602	0.9655
2	2-14-2019	5-13-2019	1.1486	0.9285
3	5-14-2019	8-13-2019	1.1860	0.9585
4	8-14-2019	11-13-2019	0.0902	0.0729
10	2-14-2021	5-13-2021	0.5469	0.4914
11	5-14-2021	8-13-2021	0.6985	0.6276
12	8-14-2021	9-30-2021	0.3644	0.3275
		<b>Highest</b>	1.2602	0.9655

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7300e-003	5.7300e-003	2.0000e-005	0.0000	6.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.8000e-004</b>	<b>3.0000e-005</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7300e-003</b>	<b>5.7300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1100e-003</b>



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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2000e-004	2.0000e-005	1.7200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0900e-003	3.0900e-003	1.0000e-005	0.0000	3.2500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.2000e-004</b>	<b>2.0000e-005</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0900e-003</b>	<b>3.0900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.2500e-003</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.14	33.33	41.89	0.00	0.00	100.00	100.00	0.00	100.00	100.00	0.00	46.07	46.07	50.00	0.00	46.81

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	11/14/2018	8/20/2019	5	200	
2	Tunneling	Trenching	8/21/2019	5/26/2020	5	200	
3	Subaqueous Pipeline	Trenching	5/27/2020	3/2/2021	5	200	
4	Paving	Paving	3/3/2021	12/7/2021	5	200	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Tunneling	Bore/Drill Rigs	1	8.00	221	0.50
Tunneling	Cranes	1	8.00	231	0.29
Tunneling	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunneling	Generator Sets	1	8.00	84	0.74
Tunneling	Off-Highway Trucks	1	8.00	402	0.38
Tunneling	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Tunneling	Welders	2	8.00	46	0.45
Subaqueous Pipeline	Forklifts	1	8.00	89	0.20
Subaqueous Pipeline	Generator Sets	1	8.00	84	0.74
Subaqueous Pipeline	Other Construction Equipment	4	8.00	172	0.42
Subaqueous Pipeline	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	2,537.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunneling	9	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Subaqueous Pipeline	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4500e-003	0.0000	7.4500e-003	9.2000e-004	0.0000	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0646	0.5447	0.4546	7.9000e-004		0.0308	0.0308		0.0290	0.0290	0.0000	69.8588	69.8588	0.0189	0.0000	70.3299
<b>Total</b>	<b>0.0646</b>	<b>0.5447</b>	<b>0.4546</b>	<b>7.9000e-004</b>	<b>7.4500e-003</b>	<b>0.0308</b>	<b>0.0383</b>	<b>9.2000e-004</b>	<b>0.0290</b>	<b>0.0300</b>	<b>0.0000</b>	<b>69.8588</b>	<b>69.8588</b>	<b>0.0189</b>	<b>0.0000</b>	<b>70.3299</b>

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**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-003	0.0700	0.0146	1.7000e-004	0.0172	2.7000e-004	0.0175	4.3400e-003	2.6000e-004	4.6000e-003	0.0000	16.9935	16.9935	1.5300e-003	0.0000	17.0319
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	2.2200e-003	0.0208	6.0000e-005	5.5100e-003	4.0000e-005	5.5500e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	5.2529	5.2529	1.8000e-004	0.0000	5.2573
<b>Total</b>	<b>4.6500e-003</b>	<b>0.0722</b>	<b>0.0354</b>	<b>2.3000e-004</b>	<b>0.0227</b>	<b>3.1000e-004</b>	<b>0.0231</b>	<b>5.8000e-003</b>	<b>3.0000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>22.2465</b>	<b>22.2465</b>	<b>1.7100e-003</b>	<b>0.0000</b>	<b>22.2892</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3500e-003	0.0000	3.3500e-003	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0203	0.4048	0.5159	7.9000e-004		0.0226	0.0226		0.0226	0.0226	0.0000	69.8587	69.8587	0.0189	0.0000	70.3298
<b>Total</b>	<b>0.0203</b>	<b>0.4048</b>	<b>0.5159</b>	<b>7.9000e-004</b>	<b>3.3500e-003</b>	<b>0.0226</b>	<b>0.0259</b>	<b>4.1000e-004</b>	<b>0.0226</b>	<b>0.0230</b>	<b>0.0000</b>	<b>69.8587</b>	<b>69.8587</b>	<b>0.0189</b>	<b>0.0000</b>	<b>70.3298</b>

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**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-003	0.0700	0.0146	1.7000e-004	0.0172	2.7000e-004	0.0175	4.3400e-003	2.6000e-004	4.6000e-003	0.0000	16.9935	16.9935	1.5300e-003	0.0000	17.0319
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6500e-003	2.2200e-003	0.0208	6.0000e-005	5.5100e-003	4.0000e-005	5.5500e-003	1.4600e-003	4.0000e-005	1.5000e-003	0.0000	5.2529	5.2529	1.8000e-004	0.0000	5.2573
<b>Total</b>	<b>4.6500e-003</b>	<b>0.0722</b>	<b>0.0354</b>	<b>2.3000e-004</b>	<b>0.0227</b>	<b>3.1000e-004</b>	<b>0.0231</b>	<b>5.8000e-003</b>	<b>3.0000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>22.2465</b>	<b>22.2465</b>	<b>1.7100e-003</b>	<b>0.0000</b>	<b>22.2892</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.4500e-003	0.0000	7.4500e-003	9.2000e-004	0.0000	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2807	2.3694	2.1796	3.8500e-003		0.1291	0.1291		0.1216	0.1216	0.0000	336.7294	336.7294	0.0909	0.0000	339.0018
<b>Total</b>	<b>0.2807</b>	<b>2.3694</b>	<b>2.1796</b>	<b>3.8500e-003</b>	<b>7.4500e-003</b>	<b>0.1291</b>	<b>0.1366</b>	<b>9.2000e-004</b>	<b>0.1216</b>	<b>0.1226</b>	<b>0.0000</b>	<b>336.7294</b>	<b>336.7294</b>	<b>0.0909</b>	<b>0.0000</b>	<b>339.0018</b>

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**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.2500e-003	0.3227	0.0704	8.3000e-004	0.0208	1.2100e-003	0.0220	5.6300e-003	1.1500e-003	6.7800e-003	0.0000	82.0800	82.0800	7.4300e-003	0.0000	82.2658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	9.6900e-003	0.0914	2.8000e-004	0.0269	1.9000e-004	0.0271	7.1500e-003	1.7000e-004	7.3200e-003	0.0000	24.8723	24.8723	7.7000e-004	0.0000	24.8917
<b>Total</b>	<b>0.0212</b>	<b>0.3323</b>	<b>0.1618</b>	<b>1.1100e-003</b>	<b>0.0477</b>	<b>1.4000e-003</b>	<b>0.0491</b>	<b>0.0128</b>	<b>1.3200e-003</b>	<b>0.0141</b>	<b>0.0000</b>	<b>106.9523</b>	<b>106.9523</b>	<b>8.2000e-003</b>	<b>0.0000</b>	<b>107.1574</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3500e-003	0.0000	3.3500e-003	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0992	1.9762	2.5186	3.8500e-003		0.1102	0.1102		0.1102	0.1102	0.0000	336.7290	336.7290	0.0909	0.0000	339.0014
<b>Total</b>	<b>0.0992</b>	<b>1.9762</b>	<b>2.5186</b>	<b>3.8500e-003</b>	<b>3.3500e-003</b>	<b>0.1102</b>	<b>0.1136</b>	<b>4.1000e-004</b>	<b>0.1102</b>	<b>0.1106</b>	<b>0.0000</b>	<b>336.7290</b>	<b>336.7290</b>	<b>0.0909</b>	<b>0.0000</b>	<b>339.0014</b>

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**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.2500e-003	0.3227	0.0704	8.3000e-004	0.0208	1.2100e-003	0.0220	5.6300e-003	1.1500e-003	6.7800e-003	0.0000	82.0800	82.0800	7.4300e-003	0.0000	82.2658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	9.6900e-003	0.0914	2.8000e-004	0.0269	1.9000e-004	0.0271	7.1500e-003	1.7000e-004	7.3200e-003	0.0000	24.8723	24.8723	7.7000e-004	0.0000	24.8917
<b>Total</b>	<b>0.0212</b>	<b>0.3323</b>	<b>0.1618</b>	<b>1.1100e-003</b>	<b>0.0477</b>	<b>1.4000e-003</b>	<b>0.0491</b>	<b>0.0128</b>	<b>1.3200e-003</b>	<b>0.0141</b>	<b>0.0000</b>	<b>106.9523</b>	<b>106.9523</b>	<b>8.2000e-003</b>	<b>0.0000</b>	<b>107.1574</b>

**3.3 Tunneling - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1796	1.5549	1.1719	2.5300e-003		0.0779	0.0779		0.0744	0.0744	0.0000	220.7913	220.7913	0.0537	0.0000	222.1326
<b>Total</b>	<b>0.1796</b>	<b>1.5549</b>	<b>1.1719</b>	<b>2.5300e-003</b>		<b>0.0779</b>	<b>0.0779</b>		<b>0.0744</b>	<b>0.0744</b>	<b>0.0000</b>	<b>220.7913</b>	<b>220.7913</b>	<b>0.0537</b>	<b>0.0000</b>	<b>222.1326</b>



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**3.3 Tunneling - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3100e-003	5.1200e-003	0.0483	1.5000e-004	0.0142	1.0000e-004	0.0143	3.7800e-003	9.0000e-005	3.8700e-003	0.0000	13.1392	13.1392	4.1000e-004	0.0000	13.1494
<b>Total</b>	<b>6.3100e-003</b>	<b>5.1200e-003</b>	<b>0.0483</b>	<b>1.5000e-004</b>	<b>0.0142</b>	<b>1.0000e-004</b>	<b>0.0143</b>	<b>3.7800e-003</b>	<b>9.0000e-005</b>	<b>3.8700e-003</b>	<b>0.0000</b>	<b>13.1392</b>	<b>13.1392</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>13.1494</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0634	1.2621	1.4822	2.5300e-003		0.0663	0.0663		0.0663	0.0663	0.0000	220.7911	220.7911	0.0537	0.0000	222.1324
<b>Total</b>	<b>0.0634</b>	<b>1.2621</b>	<b>1.4822</b>	<b>2.5300e-003</b>		<b>0.0663</b>	<b>0.0663</b>		<b>0.0663</b>	<b>0.0663</b>	<b>0.0000</b>	<b>220.7911</b>	<b>220.7911</b>	<b>0.0537</b>	<b>0.0000</b>	<b>222.1324</b>

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**3.3 Tunneling - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3100e-003	5.1200e-003	0.0483	1.5000e-004	0.0142	1.0000e-004	0.0143	3.7800e-003	9.0000e-005	3.8700e-003	0.0000	13.1392	13.1392	4.1000e-004	0.0000	13.1494
<b>Total</b>	<b>6.3100e-003</b>	<b>5.1200e-003</b>	<b>0.0483</b>	<b>1.5000e-004</b>	<b>0.0142</b>	<b>1.0000e-004</b>	<b>0.0143</b>	<b>3.7800e-003</b>	<b>9.0000e-005</b>	<b>3.8700e-003</b>	<b>0.0000</b>	<b>13.1392</b>	<b>13.1392</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>13.1494</b>

**3.3 Tunneling - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1811	1.5680	1.2683	2.8000e-003		0.0751	0.0751		0.0717	0.0717	0.0000	240.5781	240.5781	0.0585	0.0000	242.0410
<b>Total</b>	<b>0.1811</b>	<b>1.5680</b>	<b>1.2683</b>	<b>2.8000e-003</b>		<b>0.0751</b>	<b>0.0751</b>		<b>0.0717</b>	<b>0.0717</b>	<b>0.0000</b>	<b>240.5781</b>	<b>240.5781</b>	<b>0.0585</b>	<b>0.0000</b>	<b>242.0410</b>

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**3.3 Tunneling - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	5.1100e-003	0.0489	1.6000e-004	0.0157	1.1000e-004	0.0158	4.1700e-003	1.0000e-004	4.2700e-003	0.0000	14.0635	14.0635	4.1000e-004	0.0000	14.0738
<b>Total</b>	<b>6.5300e-003</b>	<b>5.1100e-003</b>	<b>0.0489</b>	<b>1.6000e-004</b>	<b>0.0157</b>	<b>1.1000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.0000e-004</b>	<b>4.2700e-003</b>	<b>0.0000</b>	<b>14.0635</b>	<b>14.0635</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>14.0738</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0701	1.3950	1.6383	2.8000e-003		0.0732	0.0732		0.0732	0.0732	0.0000	240.5778	240.5778	0.0585	0.0000	242.0407
<b>Total</b>	<b>0.0701</b>	<b>1.3950</b>	<b>1.6383</b>	<b>2.8000e-003</b>		<b>0.0732</b>	<b>0.0732</b>		<b>0.0732</b>	<b>0.0732</b>	<b>0.0000</b>	<b>240.5778</b>	<b>240.5778</b>	<b>0.0585</b>	<b>0.0000</b>	<b>242.0407</b>

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**3.3 Tunneling - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	5.1100e-003	0.0489	1.6000e-004	0.0157	1.1000e-004	0.0158	4.1700e-003	1.0000e-004	4.2700e-003	0.0000	14.0635	14.0635	4.1000e-004	0.0000	14.0738
<b>Total</b>	<b>6.5300e-003</b>	<b>5.1100e-003</b>	<b>0.0489</b>	<b>1.6000e-004</b>	<b>0.0157</b>	<b>1.1000e-004</b>	<b>0.0158</b>	<b>4.1700e-003</b>	<b>1.0000e-004</b>	<b>4.2700e-003</b>	<b>0.0000</b>	<b>14.0635</b>	<b>14.0635</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>14.0738</b>

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2142	2.1853	1.8568	2.8200e-003		0.1203	0.1203		0.1119	0.1119	0.0000	246.9025	246.9025	0.0680	0.0000	248.6026
<b>Total</b>	<b>0.2142</b>	<b>2.1853</b>	<b>1.8568</b>	<b>2.8200e-003</b>		<b>0.1203</b>	<b>0.1203</b>		<b>0.1119</b>	<b>0.1119</b>	<b>0.0000</b>	<b>246.9025</b>	<b>246.9025</b>	<b>0.0680</b>	<b>0.0000</b>	<b>248.6026</b>

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**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3200e-003	5.7300e-003	0.0548	1.7000e-004	0.0176	1.2000e-004	0.0177	4.6800e-003	1.1000e-004	4.7900e-003	0.0000	15.7713	15.7713	4.6000e-004	0.0000	15.7827
<b>Total</b>	<b>7.3200e-003</b>	<b>5.7300e-003</b>	<b>0.0548</b>	<b>1.7000e-004</b>	<b>0.0176</b>	<b>1.2000e-004</b>	<b>0.0177</b>	<b>4.6800e-003</b>	<b>1.1000e-004</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>15.7713</b>	<b>15.7713</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>15.7827</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0673	1.3676	2.0737	2.8200e-003		0.0756	0.0756		0.0756	0.0756	0.0000	246.9022	246.9022	0.0680	0.0000	248.6023
<b>Total</b>	<b>0.0673</b>	<b>1.3676</b>	<b>2.0737</b>	<b>2.8200e-003</b>		<b>0.0756</b>	<b>0.0756</b>		<b>0.0756</b>	<b>0.0756</b>	<b>0.0000</b>	<b>246.9022</b>	<b>246.9022</b>	<b>0.0680</b>	<b>0.0000</b>	<b>248.6023</b>

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**3.4 Subaqueous Pipeline - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3200e-003	5.7300e-003	0.0548	1.7000e-004	0.0176	1.2000e-004	0.0177	4.6800e-003	1.1000e-004	4.7900e-003	0.0000	15.7713	15.7713	4.6000e-004	0.0000	15.7827
<b>Total</b>	<b>7.3200e-003</b>	<b>5.7300e-003</b>	<b>0.0548</b>	<b>1.7000e-004</b>	<b>0.0176</b>	<b>1.2000e-004</b>	<b>0.0177</b>	<b>4.6800e-003</b>	<b>1.1000e-004</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>15.7713</b>	<b>15.7713</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>15.7827</b>

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.5109	0.5017	7.7000e-004		0.0275	0.0275		0.0256	0.0256	0.0000	67.6037	67.6037	0.0186	0.0000	68.0676
<b>Total</b>	<b>0.0506</b>	<b>0.5109</b>	<b>0.5017</b>	<b>7.7000e-004</b>		<b>0.0275</b>	<b>0.0275</b>		<b>0.0256</b>	<b>0.0256</b>	<b>0.0000</b>	<b>67.6037</b>	<b>67.6037</b>	<b>0.0186</b>	<b>0.0000</b>	<b>68.0676</b>

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**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.4300e-003	0.0140	5.0000e-005	4.8300e-003	3.0000e-005	4.8600e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1743	4.1743	1.2000e-004	0.0000	4.1772
<b>Total</b>	<b>1.8900e-003</b>	<b>1.4300e-003</b>	<b>0.0140</b>	<b>5.0000e-005</b>	<b>4.8300e-003</b>	<b>3.0000e-005</b>	<b>4.8600e-003</b>	<b>1.2800e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>4.1743</b>	<b>4.1743</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>4.1772</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.3746	0.5680	7.7000e-004		0.0207	0.0207		0.0207	0.0207	0.0000	67.6037	67.6037	0.0186	0.0000	68.0675
<b>Total</b>	<b>0.0184</b>	<b>0.3746</b>	<b>0.5680</b>	<b>7.7000e-004</b>		<b>0.0207</b>	<b>0.0207</b>		<b>0.0207</b>	<b>0.0207</b>	<b>0.0000</b>	<b>67.6037</b>	<b>67.6037</b>	<b>0.0186</b>	<b>0.0000</b>	<b>68.0675</b>

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**3.4 Subaqueous Pipeline - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8900e-003	1.4300e-003	0.0140	5.0000e-005	4.8300e-003	3.0000e-005	4.8600e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1743	4.1743	1.2000e-004	0.0000	4.1772
<b>Total</b>	<b>1.8900e-003</b>	<b>1.4300e-003</b>	<b>0.0140</b>	<b>5.0000e-005</b>	<b>4.8300e-003</b>	<b>3.0000e-005</b>	<b>4.8600e-003</b>	<b>1.2800e-003</b>	<b>3.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>4.1743</b>	<b>4.1743</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>4.1772</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2118	1.8994	1.9130	3.6400e-003		0.0985	0.0985		0.0923	0.0923	0.0000	318.2487	318.2487	0.0876	0.0000	320.4379
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.2118</b>	<b>1.8994</b>	<b>1.9130</b>	<b>3.6400e-003</b>		<b>0.0985</b>	<b>0.0985</b>		<b>0.0923</b>	<b>0.0923</b>	<b>0.0000</b>	<b>318.2487</b>	<b>318.2487</b>	<b>0.0876</b>	<b>0.0000</b>	<b>320.4379</b>



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**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8100e-003	6.6400e-003	0.0653	2.1000e-004	0.0224	1.5000e-004	0.0226	5.9600e-003	1.4000e-004	6.1000e-003	0.0000	19.4153	19.4153	5.4000e-004	0.0000	19.4288
<b>Total</b>	<b>8.8100e-003</b>	<b>6.6400e-003</b>	<b>0.0653</b>	<b>2.1000e-004</b>	<b>0.0224</b>	<b>1.5000e-004</b>	<b>0.0226</b>	<b>5.9600e-003</b>	<b>1.4000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>19.4153</b>	<b>19.4153</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>19.4288</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0860	1.8096	2.3546	3.6400e-003		0.1018	0.1018		0.1018	0.1018	0.0000	318.2484	318.2484	0.0876	0.0000	320.4376
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0860</b>	<b>1.8096</b>	<b>2.3546</b>	<b>3.6400e-003</b>		<b>0.1018</b>	<b>0.1018</b>		<b>0.1018</b>	<b>0.1018</b>	<b>0.0000</b>	<b>318.2484</b>	<b>318.2484</b>	<b>0.0876</b>	<b>0.0000</b>	<b>320.4376</b>

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**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8100e-003	6.6400e-003	0.0653	2.1000e-004	0.0224	1.5000e-004	0.0226	5.9600e-003	1.4000e-004	6.1000e-003	0.0000	19.4153	19.4153	5.4000e-004	0.0000	19.4288
<b>Total</b>	<b>8.8100e-003</b>	<b>6.6400e-003</b>	<b>0.0653</b>	<b>2.1000e-004</b>	<b>0.0224</b>	<b>1.5000e-004</b>	<b>0.0226</b>	<b>5.9600e-003</b>	<b>1.4000e-004</b>	<b>6.1000e-003</b>	<b>0.0000</b>	<b>19.4153</b>	<b>19.4153</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>19.4288</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2000e-004	2.0000e-005	1.7200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0900e-003	3.0900e-003	1.0000e-005	0.0000	3.2500e-003
Unmitigated	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7300e-003	5.7300e-003	2.0000e-005	0.0000	6.1100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7300e-003	5.7300e-003	2.0000e-005	0.0000	6.1100e-003
<b>Total</b>	<b>2.8000e-004</b>	<b>3.0000e-005</b>	<b>2.9600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7300e-003</b>	<b>5.7300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1100e-003</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	2.0000e-005	1.7200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0900e-003	3.0900e-003	1.0000e-005	0.0000	3.2500e-003
<b>Total</b>	<b>1.2000e-004</b>	<b>2.0000e-005</b>	<b>1.7200e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0900e-003</b>	<b>3.0900e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.2500e-003</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Annual

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**NCPWF Pipeline-Open Trench**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	320.54	1000sqft	7.36	320,535.24	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.







NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblOffRoadEquipment	PhaseName		Tunneling
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	397.47	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,537.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	74,124,875.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.0717	36.1949	28.8800	0.0602	1.4470	1.8322	3.2792	0.3590	1.7257	2.0847	0.0000	5,998.7476	5,998.7476	1.3317	0.0000	6,032.0413
2019	3.9106	32.8313	28.2650	0.0599	0.6626	1.6420	2.2348	0.1665	1.5672	1.6485	0.0000	5,918.4229	5,918.4229	1.3152	0.0000	5,951.3025
2020	3.5714	29.9554	25.1583	0.0564	0.3066	1.5333	1.7633	0.0813	1.4264	1.4874	0.0000	5,362.8238	5,362.8238	1.2376	0.0000	5,393.7649
2021	2.4399	23.8250	24.0367	0.0387	0.2299	1.2811	1.5110	0.0610	1.1921	1.2530	0.0000	3,733.8994	3,733.8994	0.9716	0.0000	3,758.1882
<b>Maximum</b>	<b>4.0717</b>	<b>36.1949</b>	<b>28.8800</b>	<b>0.0602</b>	<b>1.4470</b>	<b>1.8322</b>	<b>3.2792</b>	<b>0.3590</b>	<b>1.7257</b>	<b>2.0847</b>	<b>0.0000</b>	<b>5,998.7476</b>	<b>5,998.7476</b>	<b>1.3317</b>	<b>0.0000</b>	<b>6,032.0413</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0749</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.0398</b>

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.74	43.33	42.08	0.00	0.00	58.33	58.33	0.00	58.33	58.33	0.00	46.10	46.10	57.89	0.00	46.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	11/14/2018	8/20/2019	5	200	
2	Tunneling	Trenching	8/21/2019	5/26/2020	5	200	
3	Subaqueous Pipeline	Trenching	5/27/2020	3/2/2021	5	200	
4	Paving	Paving	3/3/2021	12/7/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Tunneling	Bore/Drill Rigs	1	8.00	221	0.50
Tunneling	Cranes	1	8.00	231	0.29
Tunneling	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunneling	Generator Sets	1	8.00	84	0.74
Tunneling	Off-Highway Trucks	1	8.00	402	0.38
Tunneling	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Tunneling	Welders	2	8.00	46	0.45
Subaqueous Pipeline	Forklifts	1	8.00	89	0.20
Subaqueous Pipeline	Generator Sets	1	8.00	84	0.74
Subaqueous Pipeline	Other Construction Equipment	4	8.00	172	0.42
Subaqueous Pipeline	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	2,537.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunneling	9	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Subaqueous Pipeline	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.8025	32.0419	26.7394	0.0464		1.8140	1.8140		1.7084	1.7084		4,529.7709	4,529.7709	1.2220		4,560.3202
<b>Total</b>	<b>3.8025</b>	<b>32.0419</b>	<b>26.7394</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.8140</b>	<b>1.8885</b>	<b>9.2000e-003</b>	<b>1.7084</b>	<b>1.7176</b>		<b>4,529.7709</b>	<b>4,529.7709</b>	<b>1.2220</b>		<b>4,560.3202</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1161	4.0348	0.8321	0.0102	1.0405	0.0159	1.0564	0.2617	0.0152	0.2769		1,109.626 1	1,109.626 1	0.0978		1,112.0715
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.2692</b>	<b>4.1530</b>	<b>2.1406</b>	<b>0.0138</b>	<b>1.3726</b>	<b>0.0182</b>	<b>1.3908</b>	<b>0.3498</b>	<b>0.0173</b>	<b>0.3671</b>		<b>1,468.976 7</b>	<b>1,468.976 7</b>	<b>0.1098</b>		<b>1,471.721 1</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,529.770 9	4,529.770 9	1.2220		4,560.320 2
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,529.770 9</b>	<b>4,529.770 9</b>	<b>1.2220</b>		<b>4,560.320 2</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1161	4.0348	0.8321	0.0102	1.0405	0.0159	1.0564	0.2617	0.0152	0.2769		1,109.626 1	1,109.626 1	0.0978		1,112.0715
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.2692</b>	<b>4.1530</b>	<b>2.1406</b>	<b>0.0138</b>	<b>1.3726</b>	<b>0.0182</b>	<b>1.3908</b>	<b>0.3498</b>	<b>0.0173</b>	<b>0.3671</b>		<b>1,468.976 7</b>	<b>1,468.976 7</b>	<b>0.1098</b>		<b>1,471.721 1</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.055 1	4,472.055 1	1.2072		4,502.234 8
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.5556</b>	<b>1.6301</b>	<b>9.2000e-003</b>	<b>1.4655</b>	<b>1.4747</b>		<b>4,472.055 1</b>	<b>4,472.055 1</b>	<b>1.2072</b>		<b>4,502.234 8</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1101	3.8102	0.8225	0.0101	0.2560	0.0144	0.2704	0.0692	0.0138	0.0829		1,097.8521	1,097.8521	0.0972		1,100.2810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.2514</b>	<b>3.9160</b>	<b>2.0053</b>	<b>0.0136</b>	<b>0.5881</b>	<b>0.0167</b>	<b>0.6048</b>	<b>0.1573</b>	<b>0.0159</b>	<b>0.1731</b>		<b>1,446.3679</b>	<b>1,446.3679</b>	<b>0.1080</b>		<b>1,449.0677</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1101	3.8102	0.8225	0.0101	0.2560	0.0144	0.2704	0.0692	0.0138	0.0829		1,097.8521	1,097.8521	0.0972		1,100.2810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.2514</b>	<b>3.9160</b>	<b>2.0053</b>	<b>0.0136</b>	<b>0.5881</b>	<b>0.0167</b>	<b>0.6048</b>	<b>0.1573</b>	<b>0.0159</b>	<b>0.1731</b>		<b>1,446.3679</b>	<b>1,446.3679</b>	<b>0.1080</b>		<b>1,449.0677</b>

**3.3 Tunneling - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7802	32.7336	24.6717	0.0533		1.6399	1.6399		1.5652	1.5652		5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>3.7802</b>	<b>32.7336</b>	<b>24.6717</b>	<b>0.0533</b>		<b>1.6399</b>	<b>1.6399</b>		<b>1.5652</b>	<b>1.5652</b>		<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1305	0.0976	1.0918	3.2300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		321.7068	321.7068	0.0100		321.9569
<b>Total</b>	<b>0.1305</b>	<b>0.0976</b>	<b>1.0918</b>	<b>3.2300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>321.7068</b>	<b>321.7068</b>	<b>0.0100</b>		<b>321.9569</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1305	0.0976	1.0918	3.2300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		321.7068	321.7068	0.0100		321.9569
<b>Total</b>	<b>0.1305</b>	<b>0.0976</b>	<b>1.0918</b>	<b>3.2300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>321.7068</b>	<b>321.7068</b>	<b>0.0100</b>		<b>321.9569</b>

**3.3 Tunneling - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4493	29.8672	24.1574	0.0533		1.4313	1.4313		1.3656	1.3656		5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>3.4493</b>	<b>29.8672</b>	<b>24.1574</b>	<b>0.0533</b>		<b>1.4313</b>	<b>1.4313</b>		<b>1.3656</b>	<b>1.3656</b>		<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1221	0.0882	1.0009	3.1300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		311.5481	311.5481	9.0600e-003		311.7747
<b>Total</b>	<b>0.1221</b>	<b>0.0882</b>	<b>1.0009</b>	<b>3.1300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>311.5481</b>	<b>311.5481</b>	<b>9.0600e-003</b>		<b>311.7747</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Tunneling - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1221	0.0882	1.0009	3.1300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		311.5481	311.5481	9.0600e-003		311.7747
<b>Total</b>	<b>0.1221</b>	<b>0.0882</b>	<b>1.0009</b>	<b>3.1300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>311.5481</b>	<b>311.5481</b>	<b>9.0600e-003</b>		<b>311.7747</b>

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7286	27.8377	23.6538	0.0359		1.5318	1.5318		1.4250	1.4250		3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>2.7286</b>	<b>27.8377</b>	<b>23.6538</b>	<b>0.0359</b>		<b>1.5318</b>	<b>1.5318</b>		<b>1.4250</b>	<b>1.4250</b>		<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0916	0.0661	0.7507	2.3400e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		233.6611	233.6611	6.8000e-003		233.8310
<b>Total</b>	<b>0.0916</b>	<b>0.0661</b>	<b>0.7507</b>	<b>2.3400e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>233.6611</b>	<b>233.6611</b>	<b>6.8000e-003</b>		<b>233.8310</b>

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3535	23.7648	23.3333	0.0359		1.2796	1.2796		1.1906	1.1906		3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>2.3535</b>	<b>23.7648</b>	<b>23.3333</b>	<b>0.0359</b>		<b>1.2796</b>	<b>1.2796</b>		<b>1.1906</b>	<b>1.1906</b>		<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Subaqueous Pipeline - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1179	18.9936	19.1299	0.0364		0.9854	0.9854		0.9233	0.9233		3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1179</b>	<b>18.9936</b>	<b>19.1299</b>	<b>0.0364</b>		<b>0.9854</b>	<b>0.9854</b>		<b>0.9233</b>	<b>0.9233</b>		<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

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**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0864	0.0602	0.7034	2.2700e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		225.8075	225.8075	6.2800e-003		225.9646
<b>Total</b>	<b>0.0864</b>	<b>0.0602</b>	<b>0.7034</b>	<b>2.2700e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>225.8075</b>	<b>225.8075</b>	<b>6.2800e-003</b>		<b>225.9646</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

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**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Unmitigated	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>		<b>0.0749</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>		<b>0.0398</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**NCPWF Pipeline-Open Trench**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	320.54	1000sqft	7.36	320,535.24	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.







NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Tunneling
tblOffRoadEquipment	PhaseName		Subaqueous Pipeline
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblOffRoadEquipment	PhaseName		Tunneling
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	397.47	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,537.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	74,124,875.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.0988	36.2526	28.8501	0.0598	1.4470	1.8325	3.2796	0.3590	1.7261	2.0851	0.0000	5,958.204 2	5,958.204 2	1.3347	0.0000	5,991.572 0
2019	3.9312	32.8432	28.2358	0.0595	0.6626	1.6420	2.2352	0.1665	1.5672	1.6485	0.0000	5,878.468 1	5,878.468 1	1.3180	0.0000	5,911.4192
2020	3.5909	29.9662	25.0817	0.0562	0.3066	1.5333	1.7633	0.0813	1.4264	1.4874	0.0000	5,343.617 3	5,343.617 3	1.2371	0.0000	5,374.544 3
2021	2.4539	23.8323	23.9812	0.0385	0.2299	1.2811	1.5110	0.0610	1.1921	1.2530	0.0000	3,719.975 1	3,719.975 1	0.9712	0.0000	3,744.253 9
<b>Maximum</b>	<b>4.0988</b>	<b>36.2526</b>	<b>28.8501</b>	<b>0.0598</b>	<b>1.4470</b>	<b>1.8325</b>	<b>3.2796</b>	<b>0.3590</b>	<b>1.7261</b>	<b>2.0851</b>	<b>0.0000</b>	<b>5,958.204 2</b>	<b>5,958.204 2</b>	<b>1.3347</b>	<b>0.0000</b>	<b>5,991.572 0</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.0749</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.0398</b>

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.74	43.33	42.08	0.00	0.00	58.33	58.33	0.00	58.33	58.33	0.00	46.10	46.10	57.89	0.00	46.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	11/14/2018	8/20/2019	5	200	
2	Tunneling	Trenching	8/21/2019	5/26/2020	5	200	
3	Subaqueous Pipeline	Trenching	5/27/2020	3/2/2021	5	200	
4	Paving	Paving	3/3/2021	12/7/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

## NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Tunneling	Bore/Drill Rigs	1	8.00	221	0.50
Tunneling	Cranes	1	8.00	231	0.29
Tunneling	Crushing/Proc. Equipment	1	8.00	85	0.78
Tunneling	Generator Sets	1	8.00	84	0.74
Tunneling	Off-Highway Trucks	1	8.00	402	0.38
Tunneling	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Tunneling	Welders	2	8.00	46	0.45
Subaqueous Pipeline	Forklifts	1	8.00	89	0.20
Subaqueous Pipeline	Generator Sets	1	8.00	84	0.74
Subaqueous Pipeline	Other Construction Equipment	4	8.00	172	0.42
Subaqueous Pipeline	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	2,537.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tunneling	9	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Subaqueous Pipeline	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.8025	32.0419	26.7394	0.0464		1.8140	1.8140		1.7084	1.7084		4,529.7709	4,529.7709	1.2220		4,560.3202
<b>Total</b>	<b>3.8025</b>	<b>32.0419</b>	<b>26.7394</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.8140</b>	<b>1.8885</b>	<b>9.2000e-003</b>	<b>1.7084</b>	<b>1.7176</b>		<b>4,529.7709</b>	<b>4,529.7709</b>	<b>1.2220</b>		<b>4,560.3202</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1194	4.0779	0.8947	0.0100	1.0405	0.0163	1.0567	0.2617	0.0155	0.2773		1,091.2129	1,091.2129	0.1015		1,093.7498
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.2963</b>	<b>4.2106</b>	<b>2.1107</b>	<b>0.0134</b>	<b>1.3726</b>	<b>0.0186</b>	<b>1.3911</b>	<b>0.3498</b>	<b>0.0177</b>	<b>0.3675</b>		<b>1,428.4332</b>	<b>1,428.4332</b>	<b>0.1128</b>		<b>1,431.2519</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,529.7709	4,529.7709	1.2220		4,560.3202
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,529.7709</b>	<b>4,529.7709</b>	<b>1.2220</b>		<b>4,560.3202</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1194	4.0779	0.8947	0.0100	1.0405	0.0163	1.0567	0.2617	0.0155	0.2773		1,091.2129	1,091.2129	0.1015		1,093.7498
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.2963</b>	<b>4.2106</b>	<b>2.1107</b>	<b>0.0134</b>	<b>1.3726</b>	<b>0.0186</b>	<b>1.3911</b>	<b>0.3498</b>	<b>0.0177</b>	<b>0.3675</b>		<b>1,428.4332</b>	<b>1,428.4332</b>	<b>0.1128</b>		<b>1,431.2519</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0745	0.0000	0.0745	9.2000e-003	0.0000	9.2000e-003			0.0000			0.0000
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>	<b>0.0745</b>	<b>1.5556</b>	<b>1.6301</b>	<b>9.2000e-003</b>	<b>1.4655</b>	<b>1.4747</b>		<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1132	3.8493	0.8814	9.9000e-003	0.2560	0.0147	0.2707	0.0692	0.0141	0.0833		1,079.3779	1,079.3779	0.1007		1,081.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.2768</b>	<b>3.9680</b>	<b>1.9762</b>	<b>0.0132</b>	<b>0.5881</b>	<b>0.0170</b>	<b>0.6051</b>	<b>0.1573</b>	<b>0.0162</b>	<b>0.1734</b>		<b>1,406.4130</b>	<b>1,406.4130</b>	<b>0.1109</b>		<b>1,409.1844</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0335	0.0000	0.0335	4.1400e-003	0.0000	4.1400e-003			0.0000			0.0000
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>	<b>0.0335</b>	<b>1.3279</b>	<b>1.3614</b>	<b>4.1400e-003</b>	<b>1.3279</b>	<b>1.3321</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1132	3.8493	0.8814	9.9000e-003	0.2560	0.0147	0.2707	0.0692	0.0141	0.0833		1,079.3779	1,079.3779	0.1007		1,081.8947
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.2768</b>	<b>3.9680</b>	<b>1.9762</b>	<b>0.0132</b>	<b>0.5881</b>	<b>0.0170</b>	<b>0.6051</b>	<b>0.1573</b>	<b>0.0162</b>	<b>0.1734</b>		<b>1,406.4130</b>	<b>1,406.4130</b>	<b>0.1109</b>		<b>1,409.1844</b>

**3.3 Tunneling - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7802	32.7336	24.6717	0.0533		1.6399	1.6399		1.5652	1.5652		5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>3.7802</b>	<b>32.7336</b>	<b>24.6717</b>	<b>0.0533</b>		<b>1.6399</b>	<b>1.6399</b>		<b>1.5652</b>	<b>1.5652</b>		<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1510	0.1096	1.0105	3.0300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		301.8786	301.8786	9.4000e-003		302.1136
<b>Total</b>	<b>0.1510</b>	<b>0.1096</b>	<b>1.0105</b>	<b>3.0300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>301.8786</b>	<b>301.8786</b>	<b>9.4000e-003</b>		<b>302.1136</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,123.8059	5,123.8059	1.2451		5,154.9329
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,123.8059</b>	<b>5,123.8059</b>	<b>1.2451</b>		<b>5,154.9329</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1510	0.1096	1.0105	3.0300e-003	0.3066	2.1000e-003	0.3087	0.0813	1.9400e-003	0.0832		301.8786	301.8786	9.4000e-003		302.1136
<b>Total</b>	<b>0.1510</b>	<b>0.1096</b>	<b>1.0105</b>	<b>3.0300e-003</b>	<b>0.3066</b>	<b>2.1000e-003</b>	<b>0.3087</b>	<b>0.0813</b>	<b>1.9400e-003</b>	<b>0.0832</b>		<b>301.8786</b>	<b>301.8786</b>	<b>9.4000e-003</b>		<b>302.1136</b>

**3.3 Tunneling - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4493	29.8672	24.1574	0.0533		1.4313	1.4313		1.3656	1.3656		5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>3.4493</b>	<b>29.8672</b>	<b>24.1574</b>	<b>0.0533</b>		<b>1.4313</b>	<b>1.4313</b>		<b>1.3656</b>	<b>1.3656</b>		<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1416	0.0990	0.9243	2.9300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		292.3416	292.3416	8.5000e-003		292.5540
<b>Total</b>	<b>0.1416</b>	<b>0.0990</b>	<b>0.9243</b>	<b>2.9300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>292.3416</b>	<b>292.3416</b>	<b>8.5000e-003</b>		<b>292.5540</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3345	26.5705	31.2047	0.0533		1.3951	1.3951		1.3951	1.3951	0.0000	5,051.2757	5,051.2757	1.2286		5,081.9903
<b>Total</b>	<b>1.3345</b>	<b>26.5705</b>	<b>31.2047</b>	<b>0.0533</b>		<b>1.3951</b>	<b>1.3951</b>		<b>1.3951</b>	<b>1.3951</b>	<b>0.0000</b>	<b>5,051.2757</b>	<b>5,051.2757</b>	<b>1.2286</b>		<b>5,081.9903</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Tunneling - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1416	0.0990	0.9243	2.9300e-003	0.3066	2.0700e-003	0.3086	0.0813	1.9100e-003	0.0832		292.3416	292.3416	8.5000e-003		292.5540
<b>Total</b>	<b>0.1416</b>	<b>0.0990</b>	<b>0.9243</b>	<b>2.9300e-003</b>	<b>0.3066</b>	<b>2.0700e-003</b>	<b>0.3086</b>	<b>0.0813</b>	<b>1.9100e-003</b>	<b>0.0832</b>		<b>292.3416</b>	<b>292.3416</b>	<b>8.5000e-003</b>		<b>292.5540</b>

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7286	27.8377	23.6538	0.0359		1.5318	1.5318		1.4250	1.4250		3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>2.7286</b>	<b>27.8377</b>	<b>23.6538</b>	<b>0.0359</b>		<b>1.5318</b>	<b>1.5318</b>		<b>1.4250</b>	<b>1.4250</b>		<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,467.0503	3,467.0503	0.9549		3,490.9226
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,467.0503</b>	<b>3,467.0503</b>	<b>0.9549</b>		<b>3,490.9226</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1062	0.0742	0.6932	2.2000e-003	0.2299	1.5500e-003	0.2315	0.0610	1.4300e-003	0.0624		219.2562	219.2562	6.3700e-003		219.4155
<b>Total</b>	<b>0.1062</b>	<b>0.0742</b>	<b>0.6932</b>	<b>2.2000e-003</b>	<b>0.2299</b>	<b>1.5500e-003</b>	<b>0.2315</b>	<b>0.0610</b>	<b>1.4300e-003</b>	<b>0.0624</b>		<b>219.2562</b>	<b>219.2562</b>	<b>6.3700e-003</b>		<b>219.4155</b>

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3535	23.7648	23.3333	0.0359		1.2796	1.2796		1.1906	1.1906		3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>2.3535</b>	<b>23.7648</b>	<b>23.3333</b>	<b>0.0359</b>		<b>1.2796</b>	<b>1.2796</b>		<b>1.1906</b>	<b>1.1906</b>		<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8568	17.4221	26.4166	0.0359		0.9631	0.9631		0.9631	0.9631	0.0000	3,466.0633	3,466.0633	0.9513		3,489.8454
<b>Total</b>	<b>0.8568</b>	<b>17.4221</b>	<b>26.4166</b>	<b>0.0359</b>		<b>0.9631</b>	<b>0.9631</b>		<b>0.9631</b>	<b>0.9631</b>	<b>0.0000</b>	<b>3,466.0633</b>	<b>3,466.0633</b>	<b>0.9513</b>		<b>3,489.8454</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Subaqueous Pipeline - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1179	18.9936	19.1299	0.0364		0.9854	0.9854		0.9233	0.9233		3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1179</b>	<b>18.9936</b>	<b>19.1299</b>	<b>0.0364</b>		<b>0.9854</b>	<b>0.9854</b>		<b>0.9233</b>	<b>0.9233</b>		<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0919	3,508.0919	0.9653		3,532.2236
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0919</b>	<b>3,508.0919</b>	<b>0.9653</b>		<b>3,532.2236</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1004	0.0675	0.6479	2.1300e-003	0.2299	1.5300e-003	0.2314	0.0610	1.4100e-003	0.0624		211.8832	211.8832	5.8800e-003		212.0303
<b>Total</b>	<b>0.1004</b>	<b>0.0675</b>	<b>0.6479</b>	<b>2.1300e-003</b>	<b>0.2299</b>	<b>1.5300e-003</b>	<b>0.2314</b>	<b>0.0610</b>	<b>1.4100e-003</b>	<b>0.0624</b>		<b>211.8832</b>	<b>211.8832</b>	<b>5.8800e-003</b>		<b>212.0303</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	



NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
Unmitigated	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1000e-003	3.0000e-004	0.0329	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0702	0.0702	1.9000e-004		0.0749
<b>Total</b>	<b>3.1000e-003</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0702</b>	<b>0.0702</b>	<b>1.9000e-004</b>		<b>0.0749</b>

NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3100e-003	1.7000e-004	0.0191	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0378	0.0378	8.0000e-005		0.0398
<b>Total</b>	<b>1.3100e-003</b>	<b>1.7000e-004</b>	<b>0.0191</b>	<b>0.0000</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>5.0000e-005</b>	<b>5.0000e-005</b>		<b>0.0378</b>	<b>0.0378</b>	<b>8.0000e-005</b>		<b>0.0398</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Open Trench - San Diego County APCD Air District, Winter

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Annual

**NCPWF Pipeline-Trenchless**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.06	1000sqft	0.05	2,057.63	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Annual

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	2,060.00	2,057.63
tblLandUse	LandUseSquareFeet	2,060.00	2,057.63
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Connections
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation
tblOffRoadEquipment	UsageHours	4.00	8.00



## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Annual

tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	2.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	476,375.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0337	0.4078	0.2280	4.4000e-004	1.7000e-003	0.0166	0.0183	4.5000e-004	0.0153	0.0158	0.0000	40.2875	40.2875	0.0121	0.0000	40.5898
2019	0.2098	2.0944	1.4040	2.4800e-003	0.0144	0.1089	0.1233	3.8200e-003	0.1014	0.1052	0.0000	221.1154	221.1154	0.0591	0.0000	222.5921
2020	0.0811	0.6561	0.5127	8.9000e-004	3.2200e-003	0.0347	0.0379	8.7000e-004	0.0326	0.0335	0.0000	74.5230	74.5230	0.0195	0.0000	75.0108
<b>Maximum</b>	<b>0.2098</b>	<b>2.0944</b>	<b>1.4040</b>	<b>2.4800e-003</b>	<b>0.0144</b>	<b>0.1089</b>	<b>0.1233</b>	<b>3.8200e-003</b>	<b>0.1014</b>	<b>0.1052</b>	<b>0.0000</b>	<b>221.1154</b>	<b>221.1154</b>	<b>0.0591</b>	<b>0.0000</b>	<b>222.5921</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0112	0.2060	0.2433	4.4000e-004	1.7000e-003	8.7500e-003	0.0104	4.5000e-004	8.7500e-003	9.2000e-003	0.0000	40.2874	40.2874	0.0121	0.0000	40.5897
2019	0.0619	1.1523	1.5031	2.4800e-003	0.0144	0.0603	0.0747	3.8200e-003	0.0603	0.0642	0.0000	221.1152	221.1152	0.0591	0.0000	222.5919
2020	0.0263	0.4812	0.5349	8.9000e-004	3.2200e-003	0.0269	0.0302	8.7000e-004	0.0269	0.0278	0.0000	74.5230	74.5230	0.0195	0.0000	75.0108
<b>Maximum</b>	<b>0.0619</b>	<b>1.1523</b>	<b>1.5031</b>	<b>2.4800e-003</b>	<b>0.0144</b>	<b>0.0603</b>	<b>0.0747</b>	<b>3.8200e-003</b>	<b>0.0603</b>	<b>0.0642</b>	<b>0.0000</b>	<b>221.1152</b>	<b>221.1152</b>	<b>0.0591</b>	<b>0.0000</b>	<b>222.5919</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.38	41.76	-6.37	0.00	0.00	40.07	35.77	0.00	35.67	34.48	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-14-2018	2-13-2019	0.8178	0.4200
2	2-14-2019	5-13-2019	0.4063	0.2190
		Highest	0.8178	0.4200

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	50.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	11/14/2018	4/2/2019	5	100	
2	Portal Excavation	Site Preparation	4/3/2019	8/20/2019	5	100	
3	Site Restoration	Site Preparation	8/21/2019	1/7/2020	5	100	
4	Pipe Installation	Building Construction	1/8/2020	5/26/2020	5	100	
5	Pipe Connections	Building Construction	5/27/2020	10/13/2020	5	100	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Cranes	1	8.00	231	0.29
Pipe Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Welders	2	8.00	46	0.45
Pipe Connections	Other General Industrial Equipment	1	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation	4	2.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Connections	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0329	0.4071	0.2217	4.2000e-004		0.0166	0.0166		0.0153	0.0153	0.0000	38.6712	38.6712	0.0120	0.0000	38.9722
<b>Total</b>	<b>0.0329</b>	<b>0.4071</b>	<b>0.2217</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0166</b>	<b>0.0166</b>	<b>0.0000</b>	<b>0.0153</b>	<b>0.0153</b>	<b>0.0000</b>	<b>38.6712</b>	<b>38.6712</b>	<b>0.0120</b>	<b>0.0000</b>	<b>38.9722</b>

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**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.8000e-004	6.3900e-003	2.0000e-005	1.7000e-003	1.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.6163	1.6163	5.0000e-005	0.0000	1.6176
<b>Total</b>	<b>8.2000e-004</b>	<b>6.8000e-004</b>	<b>6.3900e-003</b>	<b>2.0000e-005</b>	<b>1.7000e-003</b>	<b>1.0000e-005</b>	<b>1.7100e-003</b>	<b>4.5000e-004</b>	<b>1.0000e-005</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>1.6163</b>	<b>1.6163</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6176</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.2054	0.2369	4.2000e-004		8.7400e-003	8.7400e-003		8.7400e-003	8.7400e-003	0.0000	38.6711	38.6711	0.0120	0.0000	38.9721
<b>Total</b>	<b>0.0104</b>	<b>0.2054</b>	<b>0.2369</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>8.7400e-003</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>8.7400e-003</b>	<b>8.7400e-003</b>	<b>0.0000</b>	<b>38.6711</b>	<b>38.6711</b>	<b>0.0120</b>	<b>0.0000</b>	<b>38.9721</b>



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**3.2 Site Preparation at Portal Sites - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	6.8000e-004	6.3900e-003	2.0000e-005	1.7000e-003	1.0000e-005	1.7100e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.6163	1.6163	5.0000e-005	0.0000	1.6176
<b>Total</b>	<b>8.2000e-004</b>	<b>6.8000e-004</b>	<b>6.3900e-003</b>	<b>2.0000e-005</b>	<b>1.7000e-003</b>	<b>1.0000e-005</b>	<b>1.7100e-003</b>	<b>4.5000e-004</b>	<b>1.0000e-005</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>1.6163</b>	<b>1.6163</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6176</b>

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0589	0.7204	0.4027	8.2000e-004		0.0288	0.0288		0.0265	0.0265	0.0000	73.7945	73.7945	0.0234	0.0000	74.3781
<b>Total</b>	<b>0.0589</b>	<b>0.7204</b>	<b>0.4027</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>0.0288</b>	<b>0.0288</b>	<b>0.0000</b>	<b>0.0265</b>	<b>0.0265</b>	<b>0.0000</b>	<b>73.7945</b>	<b>73.7945</b>	<b>0.0234</b>	<b>0.0000</b>	<b>74.3781</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	1.1900e-003	0.0112	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.0428	3.0428	9.0000e-005	0.0000	3.0451
<b>Total</b>	<b>1.4600e-003</b>	<b>1.1900e-003</b>	<b>0.0112</b>	<b>3.0000e-005</b>	<b>3.2900e-003</b>	<b>2.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>3.0428</b>	<b>3.0428</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>3.0451</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.3986	0.4599	8.2000e-004		0.0170	0.0170		0.0170	0.0170	0.0000	73.7944	73.7944	0.0234	0.0000	74.3781
<b>Total</b>	<b>0.0202</b>	<b>0.3986</b>	<b>0.4599</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>0.0170</b>	<b>0.0170</b>	<b>0.0000</b>	<b>0.0170</b>	<b>0.0170</b>	<b>0.0000</b>	<b>73.7944</b>	<b>73.7944</b>	<b>0.0234</b>	<b>0.0000</b>	<b>74.3781</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4600e-003	1.1900e-003	0.0112	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.0428	3.0428	9.0000e-005	0.0000	3.0451
<b>Total</b>	<b>1.4600e-003</b>	<b>1.1900e-003</b>	<b>0.0112</b>	<b>3.0000e-005</b>	<b>3.2900e-003</b>	<b>2.0000e-005</b>	<b>3.3100e-003</b>	<b>8.7000e-004</b>	<b>2.0000e-005</b>	<b>9.0000e-004</b>	<b>0.0000</b>	<b>3.0428</b>	<b>3.0428</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>3.0451</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1335	1.2578	0.8431	1.3600e-003		0.0726	0.0726		0.0679	0.0679	0.0000	120.7680	120.7680	0.0311	0.0000	121.5459
<b>Total</b>	<b>0.1335</b>	<b>1.2578</b>	<b>0.8431</b>	<b>1.3600e-003</b>	<b>0.0000</b>	<b>0.0726</b>	<b>0.0726</b>	<b>0.0000</b>	<b>0.0679</b>	<b>0.0679</b>	<b>0.0000</b>	<b>120.7680</b>	<b>120.7680</b>	<b>0.0311</b>	<b>0.0000</b>	<b>121.5459</b>

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**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	3.1400e-003	0.0297	9.0000e-005	8.7300e-003	6.0000e-005	8.7900e-003	2.3200e-003	6.0000e-005	2.3800e-003	0.0000	8.0679	8.0679	2.5000e-004	0.0000	8.0742
<b>Total</b>	<b>3.8700e-003</b>	<b>3.1400e-003</b>	<b>0.0297</b>	<b>9.0000e-005</b>	<b>8.7300e-003</b>	<b>6.0000e-005</b>	<b>8.7900e-003</b>	<b>2.3200e-003</b>	<b>6.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>8.0679</b>	<b>8.0679</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>8.0742</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0318	0.6661	0.8831	1.3600e-003		0.0375	0.0375		0.0375	0.0375	0.0000	120.7679	120.7679	0.0311	0.0000	121.5457
<b>Total</b>	<b>0.0318</b>	<b>0.6661</b>	<b>0.8831</b>	<b>1.3600e-003</b>	<b>0.0000</b>	<b>0.0375</b>	<b>0.0375</b>	<b>0.0000</b>	<b>0.0375</b>	<b>0.0375</b>	<b>0.0000</b>	<b>120.7679</b>	<b>120.7679</b>	<b>0.0311</b>	<b>0.0000</b>	<b>121.5457</b>

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**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8700e-003	3.1400e-003	0.0297	9.0000e-005	8.7300e-003	6.0000e-005	8.7900e-003	2.3200e-003	6.0000e-005	2.3800e-003	0.0000	8.0679	8.0679	2.5000e-004	0.0000	8.0742
<b>Total</b>	<b>3.8700e-003</b>	<b>3.1400e-003</b>	<b>0.0297</b>	<b>9.0000e-005</b>	<b>8.7300e-003</b>	<b>6.0000e-005</b>	<b>8.7900e-003</b>	<b>2.3200e-003</b>	<b>6.0000e-005</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>8.0679</b>	<b>8.0679</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>8.0742</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1110	0.1094	1.5000e-004		7.4100e-003	7.4100e-003		6.8200e-003	6.8200e-003	0.0000	13.2524	13.2524	4.1900e-003	0.0000	13.3572
<b>Total</b>	<b>0.0111</b>	<b>0.1110</b>	<b>0.1094</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>7.4100e-003</b>	<b>7.4100e-003</b>	<b>0.0000</b>	<b>6.8200e-003</b>	<b>6.8200e-003</b>	<b>0.0000</b>	<b>13.2524</b>	<b>13.2524</b>	<b>4.1900e-003</b>	<b>0.0000</b>	<b>13.3572</b>

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**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	8.5000e-004	8.0500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.1899	2.1899	7.0000e-005	0.0000	2.1916
<b>Total</b>	<b>1.0500e-003</b>	<b>8.5000e-004</b>	<b>8.0500e-003</b>	<b>2.0000e-005</b>	<b>2.3700e-003</b>	<b>2.0000e-005</b>	<b>2.3900e-003</b>	<b>6.3000e-004</b>	<b>2.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.1899</b>	<b>2.1899</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.1916</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6100e-003	0.0824	0.1113	1.5000e-004		5.7700e-003	5.7700e-003		5.7700e-003	5.7700e-003	0.0000	13.2524	13.2524	4.1900e-003	0.0000	13.3572
<b>Total</b>	<b>3.6100e-003</b>	<b>0.0824</b>	<b>0.1113</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>5.7700e-003</b>	<b>5.7700e-003</b>	<b>0.0000</b>	<b>5.7700e-003</b>	<b>5.7700e-003</b>	<b>0.0000</b>	<b>13.2524</b>	<b>13.2524</b>	<b>4.1900e-003</b>	<b>0.0000</b>	<b>13.3572</b>

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**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0500e-003	8.5000e-004	8.0500e-003	2.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.1899	2.1899	7.0000e-005	0.0000	2.1916
<b>Total</b>	<b>1.0500e-003</b>	<b>8.5000e-004</b>	<b>8.0500e-003</b>	<b>2.0000e-005</b>	<b>2.3700e-003</b>	<b>2.0000e-005</b>	<b>2.3900e-003</b>	<b>6.3000e-004</b>	<b>2.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.1899</b>	<b>2.1899</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.1916</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	5.2600e-003	5.7000e-003	1.0000e-005		3.3000e-004	3.3000e-004		3.1000e-004	3.1000e-004	0.0000	0.6821	0.6821	2.2000e-004	0.0000	0.6877
<b>Total</b>	<b>5.2000e-004</b>	<b>5.2600e-003</b>	<b>5.7000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>0.6821</b>	<b>0.6821</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6877</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	1.2000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1116	0.1116	0.0000	0.0000	0.1117
<b>Total</b>	<b>5.0000e-005</b>	<b>4.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.1116</b>	<b>0.1116</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1117</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9000e-004	4.3400e-003	5.8600e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.6821	0.6821	2.2000e-004	0.0000	0.6877
<b>Total</b>	<b>1.9000e-004</b>	<b>4.3400e-003</b>	<b>5.8600e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.6821</b>	<b>0.6821</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.6877</b>



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**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	3.9000e-004	0.0000	1.2000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1116	0.1116	0.0000	0.0000	0.1117
<b>Total</b>	<b>5.0000e-005</b>	<b>4.0000e-005</b>	<b>3.9000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.3000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.1116</b>	<b>0.1116</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1117</b>

**3.5 Pipe Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0674	0.5320	0.3965	7.0000e-004		0.0265	0.0265		0.0250	0.0250	0.0000	57.8110	57.8110	0.0154	0.0000	58.1958
<b>Total</b>	<b>0.0674</b>	<b>0.5320</b>	<b>0.3965</b>	<b>7.0000e-004</b>		<b>0.0265</b>	<b>0.0265</b>		<b>0.0250</b>	<b>0.0250</b>	<b>0.0000</b>	<b>57.8110</b>	<b>57.8110</b>	<b>0.0154</b>	<b>0.0000</b>	<b>58.1958</b>

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**3.5 Pipe Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	0.0109	2.8900e-003	3.0000e-005	6.0000e-004	5.0000e-005	6.5000e-004	1.7000e-004	5.0000e-005	2.2000e-004	0.0000	2.4361	2.4361	1.9000e-004	0.0000	2.4409
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>8.8000e-004</b>	<b>0.0113</b>	<b>6.7700e-003</b>	<b>4.0000e-005</b>	<b>1.8500e-003</b>	<b>6.0000e-005</b>	<b>1.9100e-003</b>	<b>5.0000e-004</b>	<b>6.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>3.5523</b>	<b>3.5523</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>3.5579</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.3928	0.4204	7.0000e-004		0.0215	0.0215		0.0215	0.0215	0.0000	57.8109	57.8109	0.0154	0.0000	58.1957
<b>Total</b>	<b>0.0215</b>	<b>0.3928</b>	<b>0.4204</b>	<b>7.0000e-004</b>		<b>0.0215</b>	<b>0.0215</b>		<b>0.0215</b>	<b>0.0215</b>	<b>0.0000</b>	<b>57.8109</b>	<b>57.8109</b>	<b>0.0154</b>	<b>0.0000</b>	<b>58.1957</b>

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**3.5 Pipe Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6000e-004	0.0109	2.8900e-003	3.0000e-005	6.0000e-004	5.0000e-005	6.5000e-004	1.7000e-004	5.0000e-005	2.2000e-004	0.0000	2.4361	2.4361	1.9000e-004	0.0000	2.4409
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>8.8000e-004</b>	<b>0.0113</b>	<b>6.7700e-003</b>	<b>4.0000e-005</b>	<b>1.8500e-003</b>	<b>6.0000e-005</b>	<b>1.9100e-003</b>	<b>5.0000e-004</b>	<b>6.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>3.5523</b>	<b>3.5523</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>3.5579</b>

**3.6 Pipe Connections - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0118	0.1071	0.0995	1.3000e-004		7.8100e-003	7.8100e-003		7.1800e-003	7.1800e-003	0.0000	11.2499	11.2499	3.6400e-003	0.0000	11.3409
<b>Total</b>	<b>0.0118</b>	<b>0.1071</b>	<b>0.0995</b>	<b>1.3000e-004</b>		<b>7.8100e-003</b>	<b>7.8100e-003</b>		<b>7.1800e-003</b>	<b>7.1800e-003</b>	<b>0.0000</b>	<b>11.2499</b>	<b>11.2499</b>	<b>3.6400e-003</b>	<b>0.0000</b>	<b>11.3409</b>

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**3.6 Pipe Connections - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>5.2000e-004</b>	<b>4.1000e-004</b>	<b>3.8800e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>1.0000e-005</b>	<b>1.2600e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1162</b>	<b>1.1162</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.1170</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1700e-003	0.0723	0.0976	1.3000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003	0.0000	11.2499	11.2499	3.6400e-003	0.0000	11.3409
<b>Total</b>	<b>3.1700e-003</b>	<b>0.0723</b>	<b>0.0976</b>	<b>1.3000e-004</b>		<b>5.0700e-003</b>	<b>5.0700e-003</b>		<b>5.0700e-003</b>	<b>5.0700e-003</b>	<b>0.0000</b>	<b>11.2499</b>	<b>11.2499</b>	<b>3.6400e-003</b>	<b>0.0000</b>	<b>11.3409</b>

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**3.6 Pipe Connections - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	4.1000e-004	3.8800e-003	1.0000e-005	1.2500e-003	1.0000e-005	1.2600e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.1162	1.1162	3.0000e-005	0.0000	1.1170
<b>Total</b>	<b>5.2000e-004</b>	<b>4.1000e-004</b>	<b>3.8800e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>1.0000e-005</b>	<b>1.2600e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1162</b>	<b>1.1162</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.1170</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Annual

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**NCPWF Pipeline-Trenchless**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.06	1000sqft	0.05	2,057.63	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.



## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	2,060.00	2,057.63
tblLandUse	LandUseSquareFeet	2,060.00	2,057.63
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Connections
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation
tblOffRoadEquipment	UsageHours	4.00	8.00

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	2.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	476,375.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.9798	23.9852	13.4407	0.0260	0.1022	0.9780	1.0802	0.0271	0.8998	0.9269	0.0000	2,618.0795	2,618.0795	0.7843	0.0000	2,637.6871
2019	2.7454	25.2121	17.4981	0.0291	0.1788	1.4533	1.6321	0.0474	1.3596	1.4070	0.0000	2,850.1419	2,850.1419	0.7832	0.0000	2,867.4358
2020	1.3643	10.8625	8.0672	0.0148	0.0511	0.5304	0.5681	0.0136	0.5019	0.5122	0.0000	1,354.8194	1,354.8194	0.3442	0.0000	1,363.4248
<b>Maximum</b>	<b>2.7454</b>	<b>25.2121</b>	<b>17.4981</b>	<b>0.0291</b>	<b>0.1788</b>	<b>1.4533</b>	<b>1.6321</b>	<b>0.0474</b>	<b>1.3596</b>	<b>1.4070</b>	<b>0.0000</b>	<b>2,850.1419</b>	<b>2,850.1419</b>	<b>0.7843</b>	<b>0.0000</b>	<b>2,867.4358</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.6582	12.1160	14.3385	0.0260	0.1022	0.5147	0.6168	0.0271	0.5146	0.5417	0.0000	2,618.0795	2,618.0795	0.7843	0.0000	2,637.6871
2019	0.7111	13.3794	18.2991	0.0291	0.1788	0.7513	0.9301	0.0474	0.7512	0.7986	0.0000	2,850.1419	2,850.1419	0.7832	0.0000	2,867.4358
2020	0.4467	8.0793	8.5457	0.0148	0.0511	0.4311	0.4689	0.0136	0.4311	0.4414	0.0000	1,354.8194	1,354.8194	0.3442	0.0000	1,363.4248
<b>Maximum</b>	<b>0.7111</b>	<b>13.3794</b>	<b>18.2991</b>	<b>0.0291</b>	<b>0.1788</b>	<b>0.7513</b>	<b>0.9301</b>	<b>0.0474</b>	<b>0.7512</b>	<b>0.7986</b>	<b>0.0000</b>	<b>2,850.1419</b>	<b>2,850.1419</b>	<b>0.7843</b>	<b>0.0000</b>	<b>2,867.4358</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	70.18	44.10	-5.58	0.00	0.00	42.70	38.55	0.00	38.55	37.40	0.00	0.00	0.00	0.00	0.00	0.00

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.8000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.6000e-004</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	50.00	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.67	46.67	0.00	0.00	45.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	11/14/2018	4/2/2019	5	100	
2	Portal Excavation	Site Preparation	4/3/2019	8/20/2019	5	100	
3	Site Restoration	Site Preparation	8/21/2019	1/7/2020	5	100	
4	Pipe Installation	Building Construction	1/8/2020	5/26/2020	5	100	
5	Pipe Connections	Building Construction	5/27/2020	10/13/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Cranes	1	8.00	231	0.29
Pipe Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Welders	2	8.00	46	0.45
Pipe Connections	Other General Industrial Equipment	1	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation	4	2.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Connections	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9327	23.9488	13.0381	0.0249		0.9773	0.9773		0.8991	0.8991		2,507.510 1	2,507.510 1	0.7806		2,527.025 7
<b>Total</b>	<b>1.9327</b>	<b>23.9488</b>	<b>13.0381</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.9773</b>	<b>0.9773</b>	<b>0.0000</b>	<b>0.8991</b>	<b>0.8991</b>		<b>2,507.510 1</b>	<b>2,507.510 1</b>	<b>0.7806</b>		<b>2,527.025 7</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0364	0.4026	1.1100e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		110.5694	110.5694	3.6800e-003		110.6614
<b>Total</b>	<b>0.0471</b>	<b>0.0364</b>	<b>0.4026</b>	<b>1.1100e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>110.5694</b>	<b>110.5694</b>	<b>3.6800e-003</b>		<b>110.6614</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,507.5101	2,507.5101	0.7806		2,527.0257
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,507.5101</b>	<b>2,507.5101</b>	<b>0.7806</b>		<b>2,527.0257</b>

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**3.2 Site Preparation at Portal Sites - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0471	0.0364	0.4026	1.1100e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		110.5694	110.5694	3.6800e-003		110.6614
<b>Total</b>	<b>0.0471</b>	<b>0.0364</b>	<b>0.4026</b>	<b>1.1100e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>110.5694</b>	<b>110.5694</b>	<b>3.6800e-003</b>		<b>110.6614</b>

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7848	21.8308	12.2022	0.0249		0.8732	0.8732		0.8034	0.8034		2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>1.7848</b>	<b>21.8308</b>	<b>12.2022</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.8732</b>	<b>0.8732</b>	<b>0.0000</b>	<b>0.8034</b>	<b>0.8034</b>		<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0326	0.3640	1.0800e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		107.2356	107.2356	3.3300e-003		107.3190
<b>Total</b>	<b>0.0435</b>	<b>0.0326</b>	<b>0.3640</b>	<b>1.0800e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>107.2356</b>	<b>107.2356</b>	<b>3.3300e-003</b>		<b>107.3190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

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**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0435	0.0326	0.3640	1.0800e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		107.2356	107.2356	3.3300e-003		107.3190
<b>Total</b>	<b>0.0435</b>	<b>0.0326</b>	<b>0.3640</b>	<b>1.0800e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>107.2356</b>	<b>107.2356</b>	<b>3.3300e-003</b>		<b>107.3190</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6693	25.1551	16.8612	0.0272		1.4521	1.4521		1.3585	1.3585		2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>2.6693</b>	<b>25.1551</b>	<b>16.8612</b>	<b>0.0272</b>	<b>0.0000</b>	<b>1.4521</b>	<b>1.4521</b>	<b>0.0000</b>	<b>1.3585</b>	<b>1.3585</b>		<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0570	0.6369	1.8800e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		187.6623	187.6623	5.8400e-003		187.8082
<b>Total</b>	<b>0.0761</b>	<b>0.0570</b>	<b>0.6369</b>	<b>1.8800e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>187.6623</b>	<b>187.6623</b>	<b>5.8400e-003</b>		<b>187.8082</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0761	0.0570	0.6369	1.8800e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		187.6623	187.6623	5.8400e-003		187.8082
<b>Total</b>	<b>0.0761</b>	<b>0.0570</b>	<b>0.6369</b>	<b>1.8800e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>187.6623</b>	<b>187.6623</b>	<b>5.8400e-003</b>		<b>187.8082</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1560</b>	<b>0.1560</b>	<b>0.0000</b>	<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>



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**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0217	0.0163	0.1820	5.4000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		53.6178	53.6178	1.6700e-003		53.6595
<b>Total</b>	<b>0.0217</b>	<b>0.0163</b>	<b>0.1820</b>	<b>5.4000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>53.6178</b>	<b>53.6178</b>	<b>1.6700e-003</b>		<b>53.6595</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

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**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0217	0.0163	0.1820	5.4000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		53.6178	53.6178	1.6700e-003		53.6595
<b>Total</b>	<b>0.0217</b>	<b>0.0163</b>	<b>0.1820</b>	<b>5.4000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>53.6178</b>	<b>53.6178</b>	<b>1.6700e-003</b>		<b>53.6595</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0203	0.0147	0.1668	5.2000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		51.9247	51.9247	1.5100e-003		51.9624
<b>Total</b>	<b>0.0203</b>	<b>0.0147</b>	<b>0.1668</b>	<b>5.2000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>51.9247</b>	<b>51.9247</b>	<b>1.5100e-003</b>		<b>51.9624</b>

**3.5 Pipe Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3471	10.6393	7.9291	0.0140		0.5292	0.5292		0.5007	0.5007		1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>1.3471</b>	<b>10.6393</b>	<b>7.9291</b>	<b>0.0140</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5007</b>	<b>0.5007</b>		<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Pipe Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0172</b>	<b>0.2231</b>	<b>0.1381</b>	<b>7.7000e-004</b>	<b>0.0378</b>	<b>1.1700e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1200e-003</b>	<b>0.0114</b>		<b>80.3058</b>	<b>80.3058</b>	<b>4.8900e-003</b>		<b>80.4278</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4295	7.8562	8.4077	0.0140		0.4300	0.4300		0.4300	0.4300	0.0000	1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>0.4295</b>	<b>7.8562</b>	<b>8.4077</b>	<b>0.0140</b>		<b>0.4300</b>	<b>0.4300</b>		<b>0.4300</b>	<b>0.4300</b>	<b>0.0000</b>	<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.5 Pipe Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.0300e-003	0.2158	0.0547	5.1000e-004	0.0123	1.0000e-003	0.0133	3.5300e-003	9.6000e-004	4.4900e-003		54.3434	54.3434	4.1300e-003		54.4466
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0172</b>	<b>0.2231</b>	<b>0.1381</b>	<b>7.7000e-004</b>	<b>0.0378</b>	<b>1.1700e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1200e-003</b>	<b>0.0114</b>		<b>80.3058</b>	<b>80.3058</b>	<b>4.8900e-003</b>		<b>80.4278</b>

**3.6 Pipe Connections - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2353	2.1429	1.9898	2.5600e-003		0.1561	0.1561		0.1436	0.1436		248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.2353</b>	<b>2.1429</b>	<b>1.9898</b>	<b>2.5600e-003</b>		<b>0.1561</b>	<b>0.1561</b>		<b>0.1436</b>	<b>0.1436</b>		<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.6 Pipe Connections - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0102</b>	<b>7.3500e-003</b>	<b>0.0834</b>	<b>2.6000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>25.9623</b>	<b>25.9623</b>	<b>7.6000e-004</b>		<b>25.9812</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0633	1.4459	1.9525	2.5600e-003		0.1013	0.1013		0.1013	0.1013	0.0000	248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.0633</b>	<b>1.4459</b>	<b>1.9525</b>	<b>2.5600e-003</b>		<b>0.1013</b>	<b>0.1013</b>		<b>0.1013</b>	<b>0.1013</b>	<b>0.0000</b>	<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.6 Pipe Connections - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	7.3500e-003	0.0834	2.6000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		25.9623	25.9623	7.6000e-004		25.9812
<b>Total</b>	<b>0.0102</b>	<b>7.3500e-003</b>	<b>0.0834</b>	<b>2.6000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>25.9623</b>	<b>25.9623</b>	<b>7.6000e-004</b>		<b>25.9812</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Unmitigated	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>		<b>4.8000e-004</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>2.6000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**NCPWF Pipeline-Trenchless**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	2.06	1000sqft	0.05	2,057.63	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.





NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblConstructionPhase	NumDays	1.00	100.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	BuildingSpaceSquareFeet	2,060.00	2,057.63
tblLandUse	LandUseSquareFeet	2,060.00	2,057.63
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Connections
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Site Preparation at Portal Sites
tblOffRoadEquipment	PhaseName		Portal Excavation
tblOffRoadEquipment	PhaseName		Pipe Installation
tblOffRoadEquipment	UsageHours	4.00	8.00

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	2.55	0.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	1.00	2.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	476,375.00	0.00

## 2.0 Emissions Summary

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NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.9871	23.9896	13.4123	0.0260	0.1022	0.9780	1.0802	0.0271	0.8998	0.9269	0.0000	2,611.2703	2,611.2703	0.7841	0.0000	2,630.8725
2019	2.7574	25.2190	17.4507	0.0290	0.1788	1.4533	1.6321	0.0474	1.3596	1.4070	0.0000	2,838.5754	2,838.5754	0.7830	0.0000	2,855.8605
2020	1.3663	10.8628	8.0671	0.0147	0.0511	0.5304	0.5682	0.0136	0.5019	0.5122	0.0000	1,351.7033	1,351.7033	0.3444	0.0000	1,360.3143
<b>Maximum</b>	<b>2.7574</b>	<b>25.2190</b>	<b>17.4507</b>	<b>0.0290</b>	<b>0.1788</b>	<b>1.4533</b>	<b>1.6321</b>	<b>0.0474</b>	<b>1.3596</b>	<b>1.4070</b>	<b>0.0000</b>	<b>2,838.5754</b>	<b>2,838.5754</b>	<b>0.7841</b>	<b>0.0000</b>	<b>2,855.8605</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.6655	12.1205	14.3100	0.0260	0.1022	0.5147	0.6168	0.0271	0.5146	0.5417	0.0000	2,611.2703	2,611.2703	0.7841	0.0000	2,630.8725
2019	0.7231	13.3864	18.2517	0.0290	0.1788	0.7513	0.9301	0.0474	0.7512	0.7986	0.0000	2,838.5754	2,838.5754	0.7830	0.0000	2,855.8605
2020	0.4487	8.0797	8.5457	0.0147	0.0511	0.4312	0.4689	0.0136	0.4311	0.4414	0.0000	1,351.7033	1,351.7033	0.3444	0.0000	1,360.3143
<b>Maximum</b>	<b>0.7231</b>	<b>13.3864</b>	<b>18.2517</b>	<b>0.0290</b>	<b>0.1788</b>	<b>0.7513</b>	<b>0.9301</b>	<b>0.0474</b>	<b>0.7512</b>	<b>0.7986</b>	<b>0.0000</b>	<b>2,838.5754</b>	<b>2,838.5754</b>	<b>0.7841</b>	<b>0.0000</b>	<b>2,855.8605</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.93	44.09	-5.59	0.00	0.00	42.70	38.55	0.00	38.55	37.40	0.00	0.00	0.00	0.00	0.00	0.00

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.8000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.6000e-004</b>

## NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	50.00	0.00	42.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.67	46.67	0.00	0.00	45.83

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation at Portal Sites	Site Preparation	11/14/2018	4/2/2019	5	100	
2	Portal Excavation	Site Preparation	4/3/2019	8/20/2019	5	100	
3	Site Restoration	Site Preparation	8/21/2019	1/7/2020	5	100	
4	Pipe Installation	Building Construction	1/8/2020	5/26/2020	5	100	
5	Pipe Connections	Building Construction	5/27/2020	10/13/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation at Portal Sites	Graders	1	8.00	187	0.41
Site Preparation at Portal Sites	Scrapers	1	8.00	367	0.48
Site Preparation at Portal Sites	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Crushing/Proc. Equipment	1	8.00	85	0.78
Portal Excavation	Excavators	1	8.00	158	0.38
Portal Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Portal Excavation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Portal Excavation	Trenchers	1	8.00	78	0.50
Site Restoration	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Cranes	1	8.00	231	0.29
Pipe Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipe Installation	Welders	2	8.00	46	0.45
Pipe Connections	Other General Industrial Equipment	1	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation at Portal Sites	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Portal Excavation	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Restoration	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Installation	4	2.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipe Connections	1	2.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.9327	23.9488	13.0381	0.0249		0.9773	0.9773		0.8991	0.8991		2,507.510 1	2,507.510 1	0.7806		2,527.025 7
<b>Total</b>	<b>1.9327</b>	<b>23.9488</b>	<b>13.0381</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.9773</b>	<b>0.9773</b>	<b>0.0000</b>	<b>0.8991</b>	<b>0.8991</b>		<b>2,507.510 1</b>	<b>2,507.510 1</b>	<b>0.7806</b>		<b>2,527.025 7</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0544	0.0408	0.3742	1.0400e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		103.7601	103.7601	3.4700e-003		103.8468
<b>Total</b>	<b>0.0544</b>	<b>0.0408</b>	<b>0.3742</b>	<b>1.0400e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>103.7601</b>	<b>103.7601</b>	<b>3.4700e-003</b>		<b>103.8468</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,507.5101	2,507.5101	0.7806		2,527.0257
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,507.5101</b>	<b>2,507.5101</b>	<b>0.7806</b>		<b>2,527.0257</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0544	0.0408	0.3742	1.0400e-003	0.1022	7.1000e-004	0.1029	0.0271	6.5000e-004	0.0278		103.7601	103.7601	3.4700e-003		103.8468
<b>Total</b>	<b>0.0544</b>	<b>0.0408</b>	<b>0.3742</b>	<b>1.0400e-003</b>	<b>0.1022</b>	<b>7.1000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0278</b>		<b>103.7601</b>	<b>103.7601</b>	<b>3.4700e-003</b>		<b>103.8468</b>

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7848	21.8308	12.2022	0.0249		0.8732	0.8732		0.8034	0.8034		2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>1.7848</b>	<b>21.8308</b>	<b>12.2022</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.8732</b>	<b>0.8732</b>	<b>0.0000</b>	<b>0.8034</b>	<b>0.8034</b>		<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0365	0.3369	1.0100e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		100.6262	100.6262	3.1300e-003		100.7045
<b>Total</b>	<b>0.0503</b>	<b>0.0365</b>	<b>0.3369</b>	<b>1.0100e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>100.6262</b>	<b>100.6262</b>	<b>3.1300e-003</b>		<b>100.7045</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6111	12.0796	13.9359	0.0249		0.5139	0.5139		0.5139	0.5139	0.0000	2,464.9835	2,464.9835	0.7799		2,484.4809
<b>Total</b>	<b>0.6111</b>	<b>12.0796</b>	<b>13.9359</b>	<b>0.0249</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>0.5139</b>	<b>0.5139</b>	<b>0.0000</b>	<b>2,464.9835</b>	<b>2,464.9835</b>	<b>0.7799</b>		<b>2,484.4809</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Site Preparation at Portal Sites - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0503	0.0365	0.3369	1.0100e-003	0.1022	7.0000e-004	0.1029	0.0271	6.5000e-004	0.0277		100.6262	100.6262	3.1300e-003		100.7045
<b>Total</b>	<b>0.0503</b>	<b>0.0365</b>	<b>0.3369</b>	<b>1.0100e-003</b>	<b>0.1022</b>	<b>7.0000e-004</b>	<b>0.1029</b>	<b>0.0271</b>	<b>6.5000e-004</b>	<b>0.0277</b>		<b>100.6262</b>	<b>100.6262</b>	<b>3.1300e-003</b>		<b>100.7045</b>

**3.3 Portal Excavation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	2.6693	25.1551	16.8612	0.0272		1.4521	1.4521		1.3585	1.3585		2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>2.6693</b>	<b>25.1551</b>	<b>16.8612</b>	<b>0.0272</b>	<b>0.0000</b>	<b>1.4521</b>	<b>1.4521</b>	<b>0.0000</b>	<b>1.3585</b>	<b>1.3585</b>		<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.3 Portal Excavation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.0639	0.5895	1.7700e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		176.0959	176.0959	5.4800e-003		176.2329
<b>Total</b>	<b>0.0881</b>	<b>0.0639</b>	<b>0.5895</b>	<b>1.7700e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>176.0959</b>	<b>176.0959</b>	<b>5.4800e-003</b>		<b>176.2329</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6350	13.3224	17.6622	0.0272		0.7501	0.7501		0.7501	0.7501	0.0000	2,662.4796	2,662.4796	0.6859		2,679.6276
<b>Total</b>	<b>0.6350</b>	<b>13.3224</b>	<b>17.6622</b>	<b>0.0272</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>0.7501</b>	<b>0.7501</b>	<b>0.0000</b>	<b>2,662.4796</b>	<b>2,662.4796</b>	<b>0.6859</b>		<b>2,679.6276</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.3 Portal Excavation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0881	0.0639	0.5895	1.7700e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		176.0959	176.0959	5.4800e-003		176.2329
<b>Total</b>	<b>0.0881</b>	<b>0.0639</b>	<b>0.5895</b>	<b>1.7700e-003</b>	<b>0.1788</b>	<b>1.2300e-003</b>	<b>0.1801</b>	<b>0.0474</b>	<b>1.1300e-003</b>	<b>0.0486</b>		<b>176.0959</b>	<b>176.0959</b>	<b>5.4800e-003</b>		<b>176.2329</b>

**3.4 Site Restoration - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1560</b>	<b>0.1560</b>	<b>0.0000</b>	<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

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**3.4 Site Restoration - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0252	0.0183	0.1684	5.0000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		50.3131	50.3131	1.5700e-003		50.3523
<b>Total</b>	<b>0.0252</b>	<b>0.0183</b>	<b>0.1684</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>50.3131</b>	<b>50.3131</b>	<b>1.5700e-003</b>		<b>50.3523</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>



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**3.4 Site Restoration - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0252	0.0183	0.1684	5.0000e-004	0.0511	3.5000e-004	0.0514	0.0136	3.2000e-004	0.0139		50.3131	50.3131	1.5700e-003		50.3523
<b>Total</b>	<b>0.0252</b>	<b>0.0183</b>	<b>0.1684</b>	<b>5.0000e-004</b>	<b>0.0511</b>	<b>3.5000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>50.3131</b>	<b>50.3131</b>	<b>1.5700e-003</b>		<b>50.3523</b>

**3.4 Site Restoration - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1331</b>	<b>0.1331</b>	<b>0.0000</b>	<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

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**3.4 Site Restoration - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

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**3.4 Site Restoration - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0236	0.0165	0.1541	4.9000e-004	0.0511	3.4000e-004	0.0514	0.0136	3.2000e-004	0.0139		48.7236	48.7236	1.4200e-003		48.7590
<b>Total</b>	<b>0.0236</b>	<b>0.0165</b>	<b>0.1541</b>	<b>4.9000e-004</b>	<b>0.0511</b>	<b>3.4000e-004</b>	<b>0.0514</b>	<b>0.0136</b>	<b>3.2000e-004</b>	<b>0.0139</b>		<b>48.7236</b>	<b>48.7236</b>	<b>1.4200e-003</b>		<b>48.7590</b>

**3.5 Pipe Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3471	10.6393	7.9291	0.0140		0.5292	0.5292		0.5007	0.5007		1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>1.3471</b>	<b>10.6393</b>	<b>7.9291</b>	<b>0.0140</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5007</b>	<b>0.5007</b>		<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.5 Pipe Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0192</b>	<b>0.2235</b>	<b>0.1380</b>	<b>7.3000e-004</b>	<b>0.0378</b>	<b>1.2000e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1400e-003</b>	<b>0.0114</b>		<b>77.1897</b>	<b>77.1897</b>	<b>5.1100e-003</b>		<b>77.3174</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4295	7.8562	8.4077	0.0140		0.4300	0.4300		0.4300	0.4300	0.0000	1,274.5136	1,274.5136	0.3393		1,282.9969
<b>Total</b>	<b>0.4295</b>	<b>7.8562</b>	<b>8.4077</b>	<b>0.0140</b>		<b>0.4300</b>	<b>0.4300</b>		<b>0.4300</b>	<b>0.4300</b>	<b>0.0000</b>	<b>1,274.5136</b>	<b>1,274.5136</b>	<b>0.3393</b>		<b>1,282.9969</b>

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**3.5 Pipe Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.3800e-003	0.2153	0.0610	4.9000e-004	0.0123	1.0300e-003	0.0133	3.5300e-003	9.8000e-004	4.5100e-003		52.8279	52.8279	4.4000e-003		52.9379
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0192</b>	<b>0.2235</b>	<b>0.1380</b>	<b>7.3000e-004</b>	<b>0.0378</b>	<b>1.2000e-003</b>	<b>0.0390</b>	<b>0.0103</b>	<b>1.1400e-003</b>	<b>0.0114</b>		<b>77.1897</b>	<b>77.1897</b>	<b>5.1100e-003</b>		<b>77.3174</b>

**3.6 Pipe Connections - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2353	2.1429	1.9898	2.5600e-003		0.1561	0.1561		0.1436	0.1436		248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.2353</b>	<b>2.1429</b>	<b>1.9898</b>	<b>2.5600e-003</b>		<b>0.1561</b>	<b>0.1561</b>		<b>0.1436</b>	<b>0.1436</b>		<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

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**3.6 Pipe Connections - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0118</b>	<b>8.2500e-003</b>	<b>0.0770</b>	<b>2.4000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>24.3618</b>	<b>24.3618</b>	<b>7.1000e-004</b>		<b>24.3795</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0633	1.4459	1.9525	2.5600e-003		0.1013	0.1013		0.1013	0.1013	0.0000	248.0182	248.0182	0.0802		250.0235
<b>Total</b>	<b>0.0633</b>	<b>1.4459</b>	<b>1.9525</b>	<b>2.5600e-003</b>		<b>0.1013</b>	<b>0.1013</b>		<b>0.1013</b>	<b>0.1013</b>	<b>0.0000</b>	<b>248.0182</b>	<b>248.0182</b>	<b>0.0802</b>		<b>250.0235</b>

NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.6 Pipe Connections - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0118	8.2500e-003	0.0770	2.4000e-004	0.0256	1.7000e-004	0.0257	6.7700e-003	1.6000e-004	6.9300e-003		24.3618	24.3618	7.1000e-004		24.3795
<b>Total</b>	<b>0.0118</b>	<b>8.2500e-003</b>	<b>0.0770</b>	<b>2.4000e-004</b>	<b>0.0256</b>	<b>1.7000e-004</b>	<b>0.0257</b>	<b>6.7700e-003</b>	<b>1.6000e-004</b>	<b>6.9300e-003</b>		<b>24.3618</b>	<b>24.3618</b>	<b>7.1000e-004</b>		<b>24.3795</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



NCPWF Pipeline-Trenchless - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
Unmitigated	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.5000e-004	4.5000e-004	0.0000		4.8000e-004
<b>Total</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.5000e-004</b>	<b>4.5000e-004</b>	<b>0.0000</b>		<b>4.8000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.4000e-004	2.4000e-004	0.0000		2.6000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>2.6000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**NCPWF SVR**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	322.47	1000sqft	7.40	322,468.42	37

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

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On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - See section 7.2.2 for additional information on the emergency generator.

Stationary Sources - Process Boilers - No stationary sources.

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Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	210.00	8.50
tblGrading	AcresOfGrading	150.00	8.50
tblGrading	MaterialExported	0.00	9,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	BuildingSpaceSquareFeet	322,470.00	322,468.42
tblLandUse	LandUseSquareFeet	322,470.00	322,468.42
tblLandUse	Population	0.00	37.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	399.86	21.45
tblTripsAndVMT	VendorTripNumber	53.00	54.00
tblTripsAndVMT	WorkerTripNumber	35.00	36.00
tblTripsAndVMT	WorkerTripNumber	135.00	136.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblTripsAndVMT	WorkerTripNumber	27.00	28.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.63
tblVehicleTrips	SU_TR	0.68	1.00

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tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	74,571,187.50	769,600.00

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3832	4.4674	2.5185	6.1500e-003	0.3095	0.1736	0.4831	0.1528	0.1600	0.3128	0.0000	559.5196	559.5196	0.1463	0.0000	563.1759
2020	0.4586	4.2846	3.3974	7.8700e-003	0.1898	0.1847	0.3745	0.0515	0.1719	0.2234	0.0000	703.6384	703.6384	0.1350	0.0000	707.0124
2021	1.6985	1.8893	1.6704	3.9000e-003	0.0981	0.0769	0.1750	0.0266	0.0716	0.0981	0.0000	348.4621	348.4621	0.0671	0.0000	350.1403
<b>Maximum</b>	<b>1.6985</b>	<b>4.4674</b>	<b>3.3974</b>	<b>7.8700e-003</b>	<b>0.3095</b>	<b>0.1847</b>	<b>0.4831</b>	<b>0.1528</b>	<b>0.1719</b>	<b>0.3128</b>	<b>0.0000</b>	<b>703.6384</b>	<b>703.6384</b>	<b>0.1463</b>	<b>0.0000</b>	<b>707.0124</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1429	2.7634	2.9024	6.1500e-003	0.1647	0.1031	0.2678	0.0756	0.1030	0.1787	0.0000	559.5191	559.5191	0.1463	0.0000	563.1754
2020	0.2150	3.3279	3.6596	7.8700e-003	0.1898	0.1509	0.3407	0.0515	0.1507	0.2022	0.0000	703.6379	703.6379	0.1350	0.0000	707.0119
2021	1.5993	1.6023	1.8451	3.9000e-003	0.0981	0.0751	0.1732	0.0266	0.0750	0.1016	0.0000	348.4619	348.4619	0.0671	0.0000	350.1401
<b>Maximum</b>	<b>1.5993</b>	<b>3.3279</b>	<b>3.6596</b>	<b>7.8700e-003</b>	<b>0.1898</b>	<b>0.1509</b>	<b>0.3407</b>	<b>0.0756</b>	<b>0.1507</b>	<b>0.2022</b>	<b>0.0000</b>	<b>703.6379</b>	<b>703.6379</b>	<b>0.1463</b>	<b>0.0000</b>	<b>707.0119</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	22.96	27.70	-10.82	0.00	24.23	24.37	24.29	33.41	18.52	23.94	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-21-2019	8-20-2019	2.9825	1.6817
2	8-21-2019	11-20-2019	1.2582	0.8116
3	11-21-2019	2-20-2020	1.2342	0.8843
4	2-21-2020	5-20-2020	1.1620	0.8675
5	5-21-2020	8-20-2020	1.1861	0.8851
6	8-21-2020	11-20-2020	1.1882	0.8871
7	11-21-2020	2-20-2021	1.1307	0.8759
8	2-21-2021	5-20-2021	1.0462	0.8357
9	5-21-2021	8-20-2021	1.0151	0.9494
10	8-21-2021	9-30-2021	0.4494	0.4545
		Highest	2.9825	1.6817

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4816	160.4816	7.9400e-003	0.0000	160.6802
Stationary	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
Waste						0.0000	0.0000		0.0000	0.0000	4.3542	0.0000	4.3542	0.2573	0.0000	10.7872
Water						0.0000	0.0000		0.0000	0.0000	0.2442	3.2749	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>	<b>1.4840</b>	<b>0.3442</b>	<b>0.5732</b>	<b>1.9400e-003</b>	<b>0.1571</b>	<b>7.4800e-003</b>	<b>0.1646</b>	<b>0.0421</b>	<b>7.3900e-003</b>	<b>0.0495</b>	<b>4.5983</b>	<b>182.8021</b>	<b>187.4005</b>	<b>0.2932</b>	<b>6.2000e-004</b>	<b>194.9141</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4816	160.4816	7.9400e-003	0.0000	160.6802
Stationary	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
Waste						0.0000	0.0000		0.0000	0.0000	4.3542	0.0000	4.3542	0.2573	0.0000	10.7872
Water						0.0000	0.0000		0.0000	0.0000	0.2442	3.2749	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>	<b>1.4840</b>	<b>0.3442</b>	<b>0.5732</b>	<b>1.9400e-003</b>	<b>0.1571</b>	<b>7.4800e-003</b>	<b>0.1646</b>	<b>0.0421</b>	<b>7.3900e-003</b>	<b>0.0495</b>	<b>4.5983</b>	<b>182.8021</b>	<b>187.4005</b>	<b>0.2932</b>	<b>6.2000e-004</b>	<b>194.9141</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mass Grading	Grading	5/21/2019	7/17/2019	5	42	
2	Finish Grading	Grading	7/18/2019	12/4/2019	5	100	
3	Building Construction	Building Construction	12/5/2019	6/16/2021	5	400	
4	Paving	Paving	6/17/2021	6/25/2021	5	7	
5	Architectural Coating	Architectural Coating	6/26/2021	11/12/2021	5	100	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,703; Non-Residential Outdoor: 161,234; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mass Grading	Excavators	1	8.00	158	0.38
Mass Grading	Graders	2	8.00	187	0.41
Mass Grading	Off-Highway Trucks	1	8.00	402	0.38
Mass Grading	Plate Compactors	2	8.00	8	0.43
Mass Grading	Rubber Tired Dozers	2	8.00	247	0.40
Mass Grading	Scrapers	4	8.00	367	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Finish Grading	Graders	1	8.00	187	0.41
Finish Grading	Off-Highway Trucks	1	8.00	402	0.38
Finish Grading	Plate Compactors	2	8.00	8	0.43
Finish Grading	Scrapers	1	8.00	367	0.48
Finish Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Aerial Lifts	1	8.00	63	0.31

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mass Grading	14	36.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Grading	7	18.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	136.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Mass Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2581	0.0000	0.2581	0.1396	0.0000	0.1396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1894	2.1843	1.1923	2.4500e-003		0.0913	0.0913		0.0840	0.0840	0.0000	219.2426	219.2426	0.0691	0.0000	220.9698
<b>Total</b>	<b>0.1894</b>	<b>2.1843</b>	<b>1.1923</b>	<b>2.4500e-003</b>	<b>0.2581</b>	<b>0.0913</b>	<b>0.3493</b>	<b>0.1396</b>	<b>0.0840</b>	<b>0.2236</b>	<b>0.0000</b>	<b>219.2426</b>	<b>219.2426</b>	<b>0.0691</b>	<b>0.0000</b>	<b>220.9698</b>

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**3.2 Mass Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9400e-003	0.1724	0.0376	4.4000e-004	9.6300e-003	6.4000e-004	0.0103	2.6400e-003	6.2000e-004	3.2600e-003	0.0000	43.8522	43.8522	3.9700e-003	0.0000	43.9515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9800e-003	2.2900e-003	0.0221	6.0000e-005	6.0600e-003	4.0000e-005	6.1100e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.6586	5.6586	1.8000e-004	0.0000	5.6632
<b>Total</b>	<b>7.9200e-003</b>	<b>0.1747</b>	<b>0.0597</b>	<b>5.0000e-004</b>	<b>0.0157</b>	<b>6.8000e-004</b>	<b>0.0164</b>	<b>4.2500e-003</b>	<b>6.6000e-004</b>	<b>4.9100e-003</b>	<b>0.0000</b>	<b>49.5108</b>	<b>49.5108</b>	<b>4.1500e-003</b>	<b>0.0000</b>	<b>49.6146</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1161	0.0000	0.1161	0.0628	0.0000	0.0628	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0596	1.1627	1.3443	2.4500e-003		0.0470	0.0470		0.0470	0.0470	0.0000	219.2424	219.2424	0.0691	0.0000	220.9696
<b>Total</b>	<b>0.0596</b>	<b>1.1627</b>	<b>1.3443</b>	<b>2.4500e-003</b>	<b>0.1161</b>	<b>0.0470</b>	<b>0.1631</b>	<b>0.0628</b>	<b>0.0470</b>	<b>0.1098</b>	<b>0.0000</b>	<b>219.2424</b>	<b>219.2424</b>	<b>0.0691</b>	<b>0.0000</b>	<b>220.9696</b>

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**3.2 Mass Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9400e-003	0.1724	0.0376	4.4000e-004	9.6300e-003	6.4000e-004	0.0103	2.6400e-003	6.2000e-004	3.2600e-003	0.0000	43.8522	43.8522	3.9700e-003	0.0000	43.9515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9800e-003	2.2900e-003	0.0221	6.0000e-005	6.0600e-003	4.0000e-005	6.1100e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.6586	5.6586	1.8000e-004	0.0000	5.6632
<b>Total</b>	<b>7.9200e-003</b>	<b>0.1747</b>	<b>0.0597</b>	<b>5.0000e-004</b>	<b>0.0157</b>	<b>6.8000e-004</b>	<b>0.0164</b>	<b>4.2500e-003</b>	<b>6.6000e-004</b>	<b>4.9100e-003</b>	<b>0.0000</b>	<b>49.5108</b>	<b>49.5108</b>	<b>4.1500e-003</b>	<b>0.0000</b>	<b>49.6146</b>

**3.3 Finish Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	5.8000e-004	0.0000	5.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1404	1.5930	0.9461	2.1100e-003		0.0655	0.0655		0.0604	0.0604	0.0000	188.2053	188.2053	0.0589	0.0000	189.6773
<b>Total</b>	<b>0.1404</b>	<b>1.5930</b>	<b>0.9461</b>	<b>2.1100e-003</b>	<b>5.1400e-003</b>	<b>0.0655</b>	<b>0.0707</b>	<b>5.8000e-004</b>	<b>0.0604</b>	<b>0.0609</b>	<b>0.0000</b>	<b>188.2053</b>	<b>188.2053</b>	<b>0.0589</b>	<b>0.0000</b>	<b>189.6773</b>

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**3.3 Finish Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9400e-003	0.1724	0.0376	4.4000e-004	9.6300e-003	6.4000e-004	0.0103	2.6400e-003	6.2000e-004	3.2600e-003	0.0000	43.8522	43.8522	3.9700e-003	0.0000	43.9515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5500e-003	2.7200e-003	0.0263	7.0000e-005	7.2200e-003	5.0000e-005	7.2700e-003	1.9200e-003	5.0000e-005	1.9700e-003	0.0000	6.7365	6.7365	2.2000e-004	0.0000	6.7419
<b>Total</b>	<b>8.4900e-003</b>	<b>0.1751</b>	<b>0.0639</b>	<b>5.1000e-004</b>	<b>0.0169</b>	<b>6.9000e-004</b>	<b>0.0175</b>	<b>4.5600e-003</b>	<b>6.7000e-004</b>	<b>5.2300e-003</b>	<b>0.0000</b>	<b>50.5887</b>	<b>50.5887</b>	<b>4.1900e-003</b>	<b>0.0000</b>	<b>50.6933</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3100e-003	0.0000	2.3100e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0505	1.0032	1.1642	2.1100e-003		0.0436	0.0436		0.0436	0.0436	0.0000	188.2050	188.2050	0.0589	0.0000	189.6771
<b>Total</b>	<b>0.0505</b>	<b>1.0032</b>	<b>1.1642</b>	<b>2.1100e-003</b>	<b>2.3100e-003</b>	<b>0.0436</b>	<b>0.0459</b>	<b>2.6000e-004</b>	<b>0.0436</b>	<b>0.0439</b>	<b>0.0000</b>	<b>188.2050</b>	<b>188.2050</b>	<b>0.0589</b>	<b>0.0000</b>	<b>189.6771</b>

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**3.3 Finish Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9400e-003	0.1724	0.0376	4.4000e-004	9.6300e-003	6.4000e-004	0.0103	2.6400e-003	6.2000e-004	3.2600e-003	0.0000	43.8522	43.8522	3.9700e-003	0.0000	43.9515
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5500e-003	2.7200e-003	0.0263	7.0000e-005	7.2200e-003	5.0000e-005	7.2700e-003	1.9200e-003	5.0000e-005	1.9700e-003	0.0000	6.7365	6.7365	2.2000e-004	0.0000	6.7419
<b>Total</b>	<b>8.4900e-003</b>	<b>0.1751</b>	<b>0.0639</b>	<b>5.1000e-004</b>	<b>0.0169</b>	<b>6.9000e-004</b>	<b>0.0175</b>	<b>4.5600e-003</b>	<b>6.7000e-004</b>	<b>5.2300e-003</b>	<b>0.0000</b>	<b>50.5887</b>	<b>50.5887</b>	<b>4.1900e-003</b>	<b>0.0000</b>	<b>50.6933</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0294	0.2721	0.2014	3.3000e-004		0.0149	0.0149		0.0139	0.0139	0.0000	28.6724	28.6724	8.5400e-003	0.0000	28.8858
<b>Total</b>	<b>0.0294</b>	<b>0.2721</b>	<b>0.2014</b>	<b>3.3000e-004</b>		<b>0.0149</b>	<b>0.0149</b>		<b>0.0139</b>	<b>0.0139</b>	<b>0.0000</b>	<b>28.6724</b>	<b>28.6724</b>	<b>8.5400e-003</b>	<b>0.0000</b>	<b>28.8858</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4000e-003	0.0644	0.0173	1.4000e-004	3.4100e-003	4.5000e-004	3.8500e-003	9.8000e-004	4.3000e-004	1.4100e-003	0.0000	13.6293	13.6293	1.0900e-003	0.0000	13.6566
Worker	5.0900e-003	3.9100e-003	0.0378	1.1000e-004	0.0104	8.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8200e-003	0.0000	9.6706	9.6706	3.1000e-004	0.0000	9.6784
<b>Total</b>	<b>7.4900e-003</b>	<b>0.0683</b>	<b>0.0551</b>	<b>2.5000e-004</b>	<b>0.0138</b>	<b>5.3000e-004</b>	<b>0.0143</b>	<b>3.7300e-003</b>	<b>5.0000e-004</b>	<b>4.2300e-003</b>	<b>0.0000</b>	<b>23.2999</b>	<b>23.2999</b>	<b>1.4000e-003</b>	<b>0.0000</b>	<b>23.3350</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8700e-003	0.1793	0.2153	3.3000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	28.6724	28.6724	8.5400e-003	0.0000	28.8858
<b>Total</b>	<b>8.8700e-003</b>	<b>0.1793</b>	<b>0.2153</b>	<b>3.3000e-004</b>		<b>0.0106</b>	<b>0.0106</b>		<b>0.0106</b>	<b>0.0106</b>	<b>0.0000</b>	<b>28.6724</b>	<b>28.6724</b>	<b>8.5400e-003</b>	<b>0.0000</b>	<b>28.8858</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4000e-003	0.0644	0.0173	1.4000e-004	3.4100e-003	4.5000e-004	3.8500e-003	9.8000e-004	4.3000e-004	1.4100e-003	0.0000	13.6293	13.6293	1.0900e-003	0.0000	13.6566
Worker	5.0900e-003	3.9100e-003	0.0378	1.1000e-004	0.0104	8.0000e-005	0.0104	2.7500e-003	7.0000e-005	2.8200e-003	0.0000	9.6706	9.6706	3.1000e-004	0.0000	9.6784
<b>Total</b>	<b>7.4900e-003</b>	<b>0.0683</b>	<b>0.0551</b>	<b>2.5000e-004</b>	<b>0.0138</b>	<b>5.3000e-004</b>	<b>0.0143</b>	<b>3.7300e-003</b>	<b>5.0000e-004</b>	<b>4.2300e-003</b>	<b>0.0000</b>	<b>23.2999</b>	<b>23.2999</b>	<b>1.4000e-003</b>	<b>0.0000</b>	<b>23.3350</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3659	3.4297	2.7065	4.5200e-003		0.1797	0.1797		0.1672	0.1672	0.0000	387.8390	387.8390	0.1168	0.0000	390.7583
<b>Total</b>	<b>0.3659</b>	<b>3.4297</b>	<b>2.7065</b>	<b>4.5200e-003</b>		<b>0.1797</b>	<b>0.1797</b>		<b>0.1672</b>	<b>0.1672</b>	<b>0.0000</b>	<b>387.8390</b>	<b>387.8390</b>	<b>0.1168</b>	<b>0.0000</b>	<b>390.7583</b>



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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0270	0.8063	0.2142	1.9200e-003	0.0470	3.9300e-003	0.0509	0.0136	3.7600e-003	0.0173	0.0000	186.6556	186.6556	0.0143	0.0000	187.0133
Worker	0.0657	0.0486	0.4767	1.4300e-003	0.1429	1.0300e-003	0.1439	0.0380	9.5000e-004	0.0389	0.0000	129.1438	129.1438	3.8800e-003	0.0000	129.2408
<b>Total</b>	<b>0.0926</b>	<b>0.8549</b>	<b>0.6910</b>	<b>3.3500e-003</b>	<b>0.1898</b>	<b>4.9600e-003</b>	<b>0.1948</b>	<b>0.0515</b>	<b>4.7100e-003</b>	<b>0.0562</b>	<b>0.0000</b>	<b>315.7994</b>	<b>315.7994</b>	<b>0.0182</b>	<b>0.0000</b>	<b>316.2540</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1223	2.4730	2.9686	4.5200e-003		0.1460	0.1460		0.1460	0.1460	0.0000	387.8385	387.8385	0.1168	0.0000	390.7579
<b>Total</b>	<b>0.1223</b>	<b>2.4730</b>	<b>2.9686</b>	<b>4.5200e-003</b>		<b>0.1460</b>	<b>0.1460</b>		<b>0.1460</b>	<b>0.1460</b>	<b>0.0000</b>	<b>387.8385</b>	<b>387.8385</b>	<b>0.1168</b>	<b>0.0000</b>	<b>390.7579</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0270	0.8063	0.2142	1.9200e-003	0.0470	3.9300e-003	0.0509	0.0136	3.7600e-003	0.0173	0.0000	186.6556	186.6556	0.0143	0.0000	187.0133
Worker	0.0657	0.0486	0.4767	1.4300e-003	0.1429	1.0300e-003	0.1439	0.0380	9.5000e-004	0.0389	0.0000	129.1438	129.1438	3.8800e-003	0.0000	129.2408
<b>Total</b>	<b>0.0926</b>	<b>0.8549</b>	<b>0.6910</b>	<b>3.3500e-003</b>	<b>0.1898</b>	<b>4.9600e-003</b>	<b>0.1948</b>	<b>0.0515</b>	<b>4.7100e-003</b>	<b>0.0562</b>	<b>0.0000</b>	<b>315.7994</b>	<b>315.7994</b>	<b>0.0182</b>	<b>0.0000</b>	<b>316.2540</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1498	1.4230	1.2024	2.0500e-003		0.0709	0.0709		0.0659	0.0659	0.0000	176.1670	176.1670	0.0527	0.0000	177.4832
<b>Total</b>	<b>0.1498</b>	<b>1.4230</b>	<b>1.2024</b>	<b>2.0500e-003</b>		<b>0.0709</b>	<b>0.0709</b>		<b>0.0659</b>	<b>0.0659</b>	<b>0.0000</b>	<b>176.1670</b>	<b>176.1670</b>	<b>0.0527</b>	<b>0.0000</b>	<b>177.4832</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9300e-003	0.3302	0.0881	8.6000e-004	0.0213	7.0000e-004	0.0220	6.1600e-003	6.7000e-004	6.8300e-003	0.0000	84.0007	84.0007	6.2300e-003	0.0000	84.1565
Worker	0.0281	0.0201	0.2022	6.3000e-004	0.0649	4.6000e-004	0.0654	0.0172	4.2000e-004	0.0177	0.0000	56.6863	56.6863	1.6200e-003	0.0000	56.7269
<b>Total</b>	<b>0.0381</b>	<b>0.3503</b>	<b>0.2902</b>	<b>1.4900e-003</b>	<b>0.0862</b>	<b>1.1600e-003</b>	<b>0.0874</b>	<b>0.0234</b>	<b>1.0900e-003</b>	<b>0.0245</b>	<b>0.0000</b>	<b>140.6870</b>	<b>140.6870</b>	<b>7.8500e-003</b>	<b>0.0000</b>	<b>140.8835</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0556	1.1232	1.3484	2.0500e-003		0.0663	0.0663		0.0663	0.0663	0.0000	176.1668	176.1668	0.0527	0.0000	177.4830
<b>Total</b>	<b>0.0556</b>	<b>1.1232</b>	<b>1.3484</b>	<b>2.0500e-003</b>		<b>0.0663</b>	<b>0.0663</b>		<b>0.0663</b>	<b>0.0663</b>	<b>0.0000</b>	<b>176.1668</b>	<b>176.1668</b>	<b>0.0527</b>	<b>0.0000</b>	<b>177.4830</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.9300e-003	0.3302	0.0881	8.6000e-004	0.0213	7.0000e-004	0.0220	6.1600e-003	6.7000e-004	6.8300e-003	0.0000	84.0007	84.0007	6.2300e-003	0.0000	84.1565
Worker	0.0281	0.0201	0.2022	6.3000e-004	0.0649	4.6000e-004	0.0654	0.0172	4.2000e-004	0.0177	0.0000	56.6863	56.6863	1.6200e-003	0.0000	56.7269
<b>Total</b>	<b>0.0381</b>	<b>0.3503</b>	<b>0.2902</b>	<b>1.4900e-003</b>	<b>0.0862</b>	<b>1.1600e-003</b>	<b>0.0874</b>	<b>0.0234</b>	<b>1.0900e-003</b>	<b>0.0245</b>	<b>0.0000</b>	<b>140.6870</b>	<b>140.6870</b>	<b>7.8500e-003</b>	<b>0.0000</b>	<b>140.8835</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.9500e-003	0.0824	0.0860	1.6000e-004		4.2200e-003	4.2200e-003		3.9400e-003	3.9400e-003	0.0000	13.8361	13.8361	3.9400e-003	0.0000	13.9345
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.9500e-003</b>	<b>0.0824</b>	<b>0.0860</b>	<b>1.6000e-004</b>		<b>4.2200e-003</b>	<b>4.2200e-003</b>		<b>3.9400e-003</b>	<b>3.9400e-003</b>	<b>0.0000</b>	<b>13.8361</b>	<b>13.8361</b>	<b>3.9400e-003</b>	<b>0.0000</b>	<b>13.9345</b>

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**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.1000e-004	2.1000e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5884	0.5884	2.0000e-005	0.0000	0.5889
<b>Total</b>	<b>2.9000e-004</b>	<b>2.1000e-004</b>	<b>2.1000e-003</b>	<b>1.0000e-005</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>6.8000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5884</b>	<b>0.5884</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5889</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.7700e-003	0.0780	0.1057	1.6000e-004		4.2700e-003	4.2700e-003		4.2700e-003	4.2700e-003	0.0000	13.8360	13.8360	3.9400e-003	0.0000	13.9345
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.7700e-003</b>	<b>0.0780</b>	<b>0.1057</b>	<b>1.6000e-004</b>		<b>4.2700e-003</b>	<b>4.2700e-003</b>		<b>4.2700e-003</b>	<b>4.2700e-003</b>	<b>0.0000</b>	<b>13.8360</b>	<b>13.8360</b>	<b>3.9400e-003</b>	<b>0.0000</b>	<b>13.9345</b>

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**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.1000e-004	2.1000e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5884	0.5884	2.0000e-005	0.0000	0.5889
<b>Total</b>	<b>2.9000e-004</b>	<b>2.1000e-004</b>	<b>2.1000e-003</b>	<b>1.0000e-005</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>6.8000e-004</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.5884</b>	<b>0.5884</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.5889</b>

**3.6 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8700e-003	0.0300	0.0547	8.0000e-005		5.7000e-004	5.7000e-004		5.3000e-004	5.3000e-004	0.0000	7.3763	7.3763	2.3900e-003	0.0000	7.4360
<b>Total</b>	<b>1.4965</b>	<b>0.0300</b>	<b>0.0547</b>	<b>8.0000e-005</b>		<b>5.7000e-004</b>	<b>5.7000e-004</b>		<b>5.3000e-004</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>7.3763</b>	<b>7.3763</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>7.4360</b>

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**3.6 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8700e-003	3.4700e-003	0.0350	1.1000e-004	0.0112	8.0000e-005	0.0113	2.9800e-003	7.0000e-005	3.0600e-003	0.0000	9.8073	9.8073	2.8000e-004	0.0000	9.8143
<b>Total</b>	<b>4.8700e-003</b>	<b>3.4700e-003</b>	<b>0.0350</b>	<b>1.1000e-004</b>	<b>0.0112</b>	<b>8.0000e-005</b>	<b>0.0113</b>	<b>2.9800e-003</b>	<b>7.0000e-005</b>	<b>3.0600e-003</b>	<b>0.0000</b>	<b>9.8073</b>	<b>9.8073</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>9.8143</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0472	0.0637	8.0000e-005		3.3100e-003	3.3100e-003		3.3100e-003	3.3100e-003	0.0000	7.3763	7.3763	2.3900e-003	0.0000	7.4359
<b>Total</b>	<b>1.4967</b>	<b>0.0472</b>	<b>0.0637</b>	<b>8.0000e-005</b>		<b>3.3100e-003</b>	<b>3.3100e-003</b>		<b>3.3100e-003</b>	<b>3.3100e-003</b>	<b>0.0000</b>	<b>7.3763</b>	<b>7.3763</b>	<b>2.3900e-003</b>	<b>0.0000</b>	<b>7.4359</b>

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**3.6 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8700e-003	3.4700e-003	0.0350	1.1000e-004	0.0112	8.0000e-005	0.0113	2.9800e-003	7.0000e-005	3.0600e-003	0.0000	9.8073	9.8073	2.8000e-004	0.0000	9.8143
<b>Total</b>	<b>4.8700e-003</b>	<b>3.4700e-003</b>	<b>0.0350</b>	<b>1.1000e-004</b>	<b>0.0112</b>	<b>8.0000e-005</b>	<b>0.0113</b>	<b>2.9800e-003</b>	<b>7.0000e-005</b>	<b>3.0600e-003</b>	<b>0.0000</b>	<b>9.8073</b>	<b>9.8073</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>9.8143</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4816	160.4816	7.9400e-003	0.0000	160.6802
Unmitigated	0.0338	0.1607	0.4656	1.7400e-003	0.1571	1.4300e-003	0.1586	0.0421	1.3400e-003	0.0434	0.0000	160.4816	160.4816	7.9400e-003	0.0000	160.6802

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	32.25	201.68	322.47	416,990	416,990
Total	32.25	201.68	322.47	416,990	416,990

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
Unmitigated	1.4091	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1495					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2594					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
<b>Total</b>	<b>1.4091</b>	<b>3.0000e-005</b>	<b>2.9700e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7600e-003</b>	<b>5.7600e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1400e-003</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1495					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.2594					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.8000e-004	3.0000e-005	2.9700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.7600e-003	5.7600e-003	2.0000e-005	0.0000	6.1400e-003
<b>Total</b>	<b>1.4091</b>	<b>3.0000e-005</b>	<b>2.9700e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.7600e-003</b>	<b>5.7600e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>6.1400e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.5191	0.0252	6.2000e-004	4.3339
Unmitigated	3.5191	0.0252	6.2000e-004	4.3339

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.7696 / 0	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>		<b>3.5191</b>	<b>0.0252</b>	<b>6.2000e-004</b>	<b>4.3339</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.7696 / 0	3.5191	0.0252	6.2000e-004	4.3339
<b>Total</b>		<b>3.5191</b>	<b>0.0252</b>	<b>6.2000e-004</b>	<b>4.3339</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.3542	0.2573	0.0000	10.7872
Unmitigated	4.3542	0.2573	0.0000	10.7872



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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.45	4.3542	0.2573	0.0000	10.7872
<b>Total</b>		<b>4.3542</b>	<b>0.2573</b>	<b>0.0000</b>	<b>10.7872</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.45	4.3542	0.2573	0.0000	10.7872
<b>Total</b>		<b>4.3542</b>	<b>0.2573</b>	<b>0.0000</b>	<b>10.7872</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	8	50	1000	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0410	0.1835	0.1046	2.0000e-004	6.0400e-003	6.0400e-003	6.0400e-003	6.0400e-003	6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
<b>Total</b>	<b>0.0410</b>	<b>0.1835</b>	<b>0.1046</b>	<b>2.0000e-004</b>	<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>0.0000</b>	<b>19.0399</b>	<b>19.0399</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>19.1066</b>

**11.0 Vegetation**

NCPWF SVR - San Diego County APCD Air District, Summer

**NCPWF SVR**

**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	322.47	1000sqft	7.40	322,468.42	37

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

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On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - See section 7.2.2 for additional information on the emergency generator.

Stationary Sources - Process Boilers - No stationary sources.

NCPWF SVR - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	210.00	8.50
tblGrading	AcresOfGrading	150.00	8.50
tblGrading	MaterialExported	0.00	9,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	BuildingSpaceSquareFeet	322,470.00	322,468.42
tblLandUse	LandUseSquareFeet	322,470.00	322,468.42
tblLandUse	Population	0.00	37.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	399.86	21.45
tblTripsAndVMT	VendorTripNumber	53.00	54.00
tblTripsAndVMT	WorkerTripNumber	35.00	36.00
tblTripsAndVMT	WorkerTripNumber	135.00	136.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblTripsAndVMT	WorkerTripNumber	27.00	28.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.63
tblVehicleTrips	SU_TR	0.68	1.00

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tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	74,571,187.50	769,600.00

**2.0 Emissions Summary**

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NCPWF SVR - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	9.3940	112.1565	59.6269	0.1409	13.0527	4.3787	17.4314	6.8549	4.0311	10.8860	0.0000	14,139.77 12	14,139.77 12	3.8416	0.0000	14,235.811 0
2020	3.4943	32.6057	26.0662	0.0608	1.4828	1.4095	2.8923	0.4016	1.3118	1.7133	0.0000	5,997.458 4	5,997.458 4	1.1340	0.0000	6,025.807 6
2021	30.0272	29.7205	25.2170	0.0603	1.4828	1.2104	2.6932	0.4016	1.1280	1.5274	0.0000	5,944.652 4	5,944.652 4	1.2456	0.0000	5,972.637 5
<b>Maximum</b>	<b>30.0272</b>	<b>112.1565</b>	<b>59.6269</b>	<b>0.1409</b>	<b>13.0527</b>	<b>4.3787</b>	<b>17.4314</b>	<b>6.8549</b>	<b>4.0311</b>	<b>10.8860</b>	<b>0.0000</b>	<b>14,139.77 12</b>	<b>14,139.77 12</b>	<b>3.8416</b>	<b>0.0000</b>	<b>14,235.81 10</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.2102	63.5125	66.8626	0.1409	6.2938	2.2696	8.5634	3.1984	2.2681	5.4665	0.0000	14,139.77 12	14,139.77 12	3.8416	0.0000	14,235.811 0
2020	1.6348	25.3030	28.0676	0.0608	1.4828	1.1518	2.6346	0.4016	1.1499	1.5515	0.0000	5,997.458 4	5,997.458 4	1.1340	0.0000	6,025.807 6
2021	30.0310	24.6822	30.8469	0.0603	1.4828	1.2215	2.6162	0.4016	1.2214	1.5339	0.0000	5,944.652 4	5,944.652 4	1.2456	0.0000	5,972.637 5
<b>Maximum</b>	<b>30.0310</b>	<b>63.5125</b>	<b>66.8626</b>	<b>0.1409</b>	<b>6.2938</b>	<b>2.2696</b>	<b>8.5634</b>	<b>3.1984</b>	<b>2.2681</b>	<b>5.4665</b>	<b>0.0000</b>	<b>14,139.77 12</b>	<b>14,139.77 12</b>	<b>3.8416</b>	<b>0.0000</b>	<b>14,235.81 10</b>

NCPWF SVR - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	18.73	34.95	-13.40	0.00	42.20	33.66	39.98	47.75	28.30	39.46	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4938</b>	<b>61.5153</b>	<b>42.3261</b>	<b>0.0960</b>	<b>2.9120</b>	<b>1.9572</b>	<b>4.8692</b>	<b>0.7783</b>	<b>1.9555</b>	<b>2.7338</b>		<b>10,059.5348</b>	<b>10,059.5348</b>	<b>1.1023</b>	<b>0.0000</b>	<b>10,087.0916</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4938</b>	<b>61.5153</b>	<b>42.3261</b>	<b>0.0960</b>	<b>2.9120</b>	<b>1.9572</b>	<b>4.8692</b>	<b>0.7783</b>	<b>1.9555</b>	<b>2.7338</b>		<b>10,059.5348</b>	<b>10,059.5348</b>	<b>1.1023</b>	<b>0.0000</b>	<b>10,087.0916</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

NCPWF SVR - San Diego County APCD Air District, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mass Grading	Grading	5/21/2019	7/17/2019	5	42	
2	Finish Grading	Grading	7/18/2019	12/4/2019	5	100	
3	Building Construction	Building Construction	12/5/2019	6/16/2021	5	400	
4	Paving	Paving	6/17/2021	6/25/2021	5	7	
5	Architectural Coating	Architectural Coating	6/26/2021	11/12/2021	5	100	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,703; Non-Residential Outdoor: 161,234; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## NCPWF SVR - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mass Grading	Excavators	1	8.00	158	0.38
Mass Grading	Graders	2	8.00	187	0.41
Mass Grading	Off-Highway Trucks	1	8.00	402	0.38
Mass Grading	Plate Compactors	2	8.00	8	0.43
Mass Grading	Rubber Tired Dozers	2	8.00	247	0.40
Mass Grading	Scrapers	4	8.00	367	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Finish Grading	Graders	1	8.00	187	0.41
Finish Grading	Off-Highway Trucks	1	8.00	402	0.38
Finish Grading	Plate Compactors	2	8.00	8	0.43
Finish Grading	Scrapers	1	8.00	367	0.48
Finish Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Aerial Lifts	1	8.00	63	0.31

**Trips and VMT**

NCPWF SVR - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mass Grading	14	36.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Grading	7	18.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	136.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Mass Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.2889	0.0000	12.2889	6.6482	0.0000	6.6482			0.0000			0.0000
Off-Road	9.0201	104.0122	56.7763	0.1165		4.3462	4.3462		4.0001	4.0001		11,508.2688	11,508.2688	3.6264		11,598.927
<b>Total</b>	<b>9.0201</b>	<b>104.0122</b>	<b>56.7763</b>	<b>0.1165</b>	<b>12.2889</b>	<b>4.3462</b>	<b>16.6351</b>	<b>6.6482</b>	<b>4.0001</b>	<b>10.6483</b>		<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.2 Mass Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2325	8.0457	1.7368	0.0213	0.4681	0.0304	0.4984	0.1283	0.0291	0.1573		2,318.2305	2,318.2305	0.2052		2,323.3593
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1414	0.0987	1.1139	3.1500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		313.2719	313.2719	0.0100		313.5220
<b>Total</b>	<b>0.3739</b>	<b>8.1444</b>	<b>2.8507</b>	<b>0.0244</b>	<b>0.7638</b>	<b>0.0325</b>	<b>0.7963</b>	<b>0.2067</b>	<b>0.0310</b>	<b>0.2377</b>		<b>2,631.5024</b>	<b>2,631.5024</b>	<b>0.2152</b>		<b>2,636.8813</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5300	0.0000	5.5300	2.9917	0.0000	2.9917			0.0000			0.0000
Off-Road	2.8364	55.3681	64.0120	0.1165		2.2371	2.2371		2.2371	2.2371	0.0000	11,508.2688	11,508.2688	3.6264		11,598.9297
<b>Total</b>	<b>2.8364</b>	<b>55.3681</b>	<b>64.0120</b>	<b>0.1165</b>	<b>5.5300</b>	<b>2.2371</b>	<b>7.7671</b>	<b>2.9917</b>	<b>2.2371</b>	<b>5.2288</b>	<b>0.0000</b>	<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.2 Mass Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2325	8.0457	1.7368	0.0213	0.4681	0.0304	0.4984	0.1283	0.0291	0.1573		2,318.2305	2,318.2305	0.2052		2,323.3593
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1414	0.0987	1.1139	3.1500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		313.2719	313.2719	0.0100		313.5220
<b>Total</b>	<b>0.3739</b>	<b>8.1444</b>	<b>2.8507</b>	<b>0.0244</b>	<b>0.7638</b>	<b>0.0325</b>	<b>0.7963</b>	<b>0.2067</b>	<b>0.0310</b>	<b>0.2377</b>		<b>2,631.5024</b>	<b>2,631.5024</b>	<b>0.2152</b>		<b>2,636.8813</b>

**3.3 Finish Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1028	0.0000	0.1028	0.0117	0.0000	0.0117			0.0000			0.0000
Off-Road	2.8077	31.8604	18.9226	0.0422		1.3102	1.3102		1.2070	1.2070		4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>2.8077</b>	<b>31.8604</b>	<b>18.9226</b>	<b>0.0422</b>	<b>0.1028</b>	<b>1.3102</b>	<b>1.4130</b>	<b>0.0117</b>	<b>1.2070</b>	<b>1.2186</b>		<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>



NCPWF SVR - San Diego County APCD Air District, Summer

**3.3 Finish Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0977	3.3792	0.7294	8.9300e-003	0.1966	0.0128	0.2093	0.0539	0.0122	0.0661		973.6568	973.6568	0.0862		975.8109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.0493	0.5569	1.5700e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		156.6359	156.6359	5.0000e-003		156.7610
<b>Total</b>	<b>0.1683</b>	<b>3.4285</b>	<b>1.2864</b>	<b>0.0105</b>	<b>0.3445</b>	<b>0.0138</b>	<b>0.3583</b>	<b>0.0931</b>	<b>0.0132</b>	<b>0.1063</b>		<b>1,130.2927</b>	<b>1,130.2927</b>	<b>0.0912</b>		<b>1,132.5719</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0463	0.0000	0.0463	5.2400e-003	0.0000	5.2400e-003			0.0000			0.0000
Off-Road	1.0103	20.0646	23.2829	0.0422		0.8726	0.8726		0.8726	0.8726	0.0000	4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>1.0103</b>	<b>20.0646</b>	<b>23.2829</b>	<b>0.0422</b>	<b>0.0463</b>	<b>0.8726</b>	<b>0.9188</b>	<b>5.2400e-003</b>	<b>0.8726</b>	<b>0.8778</b>	<b>0.0000</b>	<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.3 Finish Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0977	3.3792	0.7294	8.9300e-003	0.1966	0.0128	0.2093	0.0539	0.0122	0.0661		973.6568	973.6568	0.0862		975.8109
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0707	0.0493	0.5569	1.5700e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		156.6359	156.6359	5.0000e-003		156.7610
<b>Total</b>	<b>0.1683</b>	<b>3.4285</b>	<b>1.2864</b>	<b>0.0105</b>	<b>0.3445</b>	<b>0.0138</b>	<b>0.3583</b>	<b>0.0931</b>	<b>0.0132</b>	<b>0.1063</b>		<b>1,130.2927</b>	<b>1,130.2927</b>	<b>0.0912</b>		<b>1,132.5719</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0984	28.6373	21.1943	0.0345		1.5701	1.5701		1.4604	1.4604		3,326.9359	3,326.9359	0.9907		3,351.7031
<b>Total</b>	<b>3.0984</b>	<b>28.6373</b>	<b>21.1943</b>	<b>0.0345</b>		<b>1.5701</b>	<b>1.5701</b>		<b>1.4604</b>	<b>1.4604</b>		<b>3,326.9359</b>	<b>3,326.9359</b>	<b>0.9907</b>		<b>3,351.7031</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2485	6.6953	1.7285	0.0149	0.3656	0.0466	0.4121	0.1052	0.0446	0.1498		1,598.4898	1,598.4898	0.1234		1,601.5751
Worker	0.5340	0.3727	4.2080	0.0119	1.1172	7.9600e-003	1.1252	0.2963	7.3400e-003	0.3037		1,183.4715	1,183.4715	0.0378		1,184.4163
<b>Total</b>	<b>0.7825</b>	<b>7.0680</b>	<b>5.9365</b>	<b>0.0268</b>	<b>1.4828</b>	<b>0.0545</b>	<b>1.5373</b>	<b>0.4016</b>	<b>0.0519</b>	<b>0.4535</b>		<b>2,781.9613</b>	<b>2,781.9613</b>	<b>0.1612</b>		<b>2,785.9914</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,326.9359	3,326.9359	0.9907		3,351.7031
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,326.9359</b>	<b>3,326.9359</b>	<b>0.9907</b>		<b>3,351.7031</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2485	6.6953	1.7285	0.0149	0.3656	0.0466	0.4121	0.1052	0.0446	0.1498		1,598.4898	1,598.4898	0.1234		1,601.5751
Worker	0.5340	0.3727	4.2080	0.0119	1.1172	7.9600e-003	1.1252	0.2963	7.3400e-003	0.3037		1,183.4715	1,183.4715	0.0378		1,184.4163
<b>Total</b>	<b>0.7825</b>	<b>7.0680</b>	<b>5.9365</b>	<b>0.0268</b>	<b>1.4828</b>	<b>0.0545</b>	<b>1.5373</b>	<b>0.4016</b>	<b>0.0519</b>	<b>0.4535</b>		<b>2,781.9613</b>	<b>2,781.9613</b>	<b>0.1612</b>		<b>2,785.9914</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7935	26.1806	20.6600	0.0345		1.3719	1.3719		1.2760	1.2760		3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>2.7935</b>	<b>26.1806</b>	<b>20.6600</b>	<b>0.0345</b>		<b>1.3719</b>	<b>1.3719</b>		<b>1.2760</b>	<b>1.2760</b>		<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2018	6.0889	1.5512	0.0148	0.3656	0.0298	0.3954	0.1052	0.0285	0.1337		1,587.8164	1,587.8164	0.1171		1,590.7448
Worker	0.4991	0.3363	3.8550	0.0115	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,146.1360	1,146.1360	0.0342		1,146.9916
<b>Total</b>	<b>0.7009</b>	<b>6.4252</b>	<b>5.4063</b>	<b>0.0263</b>	<b>1.4828</b>	<b>0.0376</b>	<b>1.5204</b>	<b>0.4016</b>	<b>0.0357</b>	<b>0.4373</b>		<b>2,733.9524</b>	<b>2,733.9524</b>	<b>0.1514</b>		<b>2,737.7363</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2018	6.0889	1.5512	0.0148	0.3656	0.0298	0.3954	0.1052	0.0285	0.1337		1,587.8164	1,587.8164	0.1171		1,590.7448
Worker	0.4991	0.3363	3.8550	0.0115	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,146.1360	1,146.1360	0.0342		1,146.9916
<b>Total</b>	<b>0.7009</b>	<b>6.4252</b>	<b>5.4063</b>	<b>0.0263</b>	<b>1.4828</b>	<b>0.0376</b>	<b>1.5204</b>	<b>0.4016</b>	<b>0.0357</b>	<b>0.4373</b>		<b>2,733.9524</b>	<b>2,733.9524</b>	<b>0.1514</b>		<b>2,737.7363</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5183	23.9160	20.2085	0.0345		1.1911	1.1911		1.1077	1.1077		3,263.7123	3,263.7123	0.9754		3,288.0967
<b>Total</b>	<b>2.5183</b>	<b>23.9160</b>	<b>20.2085</b>	<b>0.0345</b>		<b>1.1911</b>	<b>1.1911</b>		<b>1.1077</b>	<b>1.1077</b>		<b>3,263.7123</b>	<b>3,263.7123</b>	<b>0.9754</b>		<b>3,288.0967</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1633	5.4988	1.4013	0.0146	0.3656	0.0116	0.3771	0.1052	0.0110	0.1163		1,573.3005	1,573.3005	0.1124		1,576.1109
Worker	0.4704	0.3056	3.6072	0.0111	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,107.6396	1,107.6396	0.0316		1,108.4299
<b>Total</b>	<b>0.6337</b>	<b>5.8044</b>	<b>5.0085</b>	<b>0.0257</b>	<b>1.4828</b>	<b>0.0193</b>	<b>1.5020</b>	<b>0.4016</b>	<b>0.0182</b>	<b>0.4197</b>		<b>2,680.9401</b>	<b>2,680.9401</b>	<b>0.1440</b>		<b>2,684.5408</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.7123	3,263.7123	0.9754		3,288.0967
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.7123</b>	<b>3,263.7123</b>	<b>0.9754</b>		<b>3,288.0967</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1633	5.4988	1.4013	0.0146	0.3656	0.0116	0.3771	0.1052	0.0110	0.1163		1,573.3005	1,573.3005	0.1124		1,576.1109
Worker	0.4704	0.3056	3.6072	0.0111	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,107.6396	1,107.6396	0.0316		1,108.4299
<b>Total</b>	<b>0.6337</b>	<b>5.8044</b>	<b>5.0085</b>	<b>0.0257</b>	<b>1.4828</b>	<b>0.0193</b>	<b>1.5020</b>	<b>0.4016</b>	<b>0.0182</b>	<b>0.4197</b>		<b>2,680.9401</b>	<b>2,680.9401</b>	<b>0.1440</b>		<b>2,684.5408</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5561	23.5289	24.5761	0.0452		1.2067	1.2067		1.1268	1.1268		4,357.6084	4,357.6084	1.2400		4,388.6089
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.5561</b>	<b>23.5289</b>	<b>24.5761</b>	<b>0.0452</b>		<b>1.2067</b>	<b>1.2067</b>		<b>1.1268</b>	<b>1.1268</b>		<b>4,357.6084</b>	<b>4,357.6084</b>	<b>1.2400</b>		<b>4,388.6089</b>



NCPWF SVR - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0830	0.0539	0.6366	1.9600e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		195.4658	195.4658	5.5800e-003		195.6053
<b>Total</b>	<b>0.0830</b>	<b>0.0539</b>	<b>0.6366</b>	<b>1.9600e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>195.4658</b>	<b>195.4658</b>	<b>5.5800e-003</b>		<b>195.6053</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0759	22.2742	30.2103	0.0452		1.2201	1.2201		1.2201	1.2201	0.0000	4,357.6084	4,357.6084	1.2400		4,388.6089
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0759</b>	<b>22.2742</b>	<b>30.2103</b>	<b>0.0452</b>		<b>1.2201</b>	<b>1.2201</b>		<b>1.2201</b>	<b>1.2201</b>	<b>0.0000</b>	<b>4,357.6084</b>	<b>4,357.6084</b>	<b>1.2400</b>		<b>4,388.6089</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0830	0.0539	0.6366	1.9600e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		195.4658	195.4658	5.5800e-003		195.6053
<b>Total</b>	<b>0.0830</b>	<b>0.0539</b>	<b>0.6366</b>	<b>1.9600e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>195.4658</b>	<b>195.4658</b>	<b>5.5800e-003</b>		<b>195.6053</b>

**3.6 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0375	0.6006	1.0941	1.6800e-003		0.0115	0.0115		0.0105	0.0105		162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>29.9303</b>	<b>0.6006</b>	<b>1.0941</b>	<b>1.6800e-003</b>		<b>0.0115</b>	<b>0.0115</b>		<b>0.0105</b>	<b>0.0105</b>		<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.6 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0969	0.0629	0.7427	2.2900e-003	0.2300	1.5900e-003	0.2316	0.0610	1.4600e-003	0.0625		228.0435	228.0435	6.5100e-003		228.2062
<b>Total</b>	<b>0.0969</b>	<b>0.0629</b>	<b>0.7427</b>	<b>2.2900e-003</b>	<b>0.2300</b>	<b>1.5900e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4600e-003</b>	<b>0.0625</b>		<b>228.0435</b>	<b>228.0435</b>	<b>6.5100e-003</b>		<b>228.2062</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0413	0.9438	1.2745	1.6800e-003		0.0661	0.0661		0.0661	0.0661	0.0000	162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>29.9342</b>	<b>0.9438</b>	<b>1.2745</b>	<b>1.6800e-003</b>		<b>0.0661</b>	<b>0.0661</b>		<b>0.0661</b>	<b>0.0661</b>	<b>0.0000</b>	<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**3.6 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0969	0.0629	0.7427	2.2900e-003	0.2300	1.5900e-003	0.2316	0.0610	1.4600e-003	0.0625		228.0435	228.0435	6.5100e-003		228.2062
<b>Total</b>	<b>0.0969</b>	<b>0.0629</b>	<b>0.7427</b>	<b>2.2900e-003</b>	<b>0.2300</b>	<b>1.5900e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4600e-003</b>	<b>0.0625</b>		<b>228.0435</b>	<b>228.0435</b>	<b>6.5100e-003</b>		<b>228.2062</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF SVR - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634
Unmitigated	0.6424	2.8050	8.8181	0.0329	2.9120	0.0259	2.9378	0.7783	0.0242	0.8024		3,343.3513	3,343.3513	0.1605		3,347.3634

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	32.25	201.68	322.47	416,990	416,990
Total	32.25	201.68	322.47	416,990	416,990

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

NCPWF SVR - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCPWF SVR - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Unmitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>



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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF SVR - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	8	50	1000	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (750 - 9999 HP)	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>13.1285</b>	<b>58.7100</b>	<b>33.4750</b>	<b>0.0631</b>		<b>1.9313</b>	<b>1.9313</b>		<b>1.9313</b>	<b>1.9313</b>		<b>6,716.1130</b>	<b>6,716.1130</b>	<b>0.9416</b>		<b>6,739.6530</b>

**11.0 Vegetation**

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NCPWF SVR - San Diego County APCD Air District, Winter

**NCPWF SVR**

**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	322.47	1000sqft	7.40	322,468.42	37

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

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On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - CalEEMod defaults.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - See section 7.2.2 for additional information on the emergency generator.

Stationary Sources - Process Boilers - No stationary sources.

NCPWF SVR - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - CalEEMod defaults.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	210.00	8.50
tblGrading	AcresOfGrading	150.00	8.50
tblGrading	MaterialExported	0.00	9,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	BuildingSpaceSquareFeet	322,470.00	322,468.42
tblLandUse	LandUseSquareFeet	322,470.00	322,468.42
tblLandUse	Population	0.00	37.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

NCPWF SVR - San Diego County APCD Air District, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	399.86	21.45
tblTripsAndVMT	VendorTripNumber	53.00	54.00
tblTripsAndVMT	WorkerTripNumber	35.00	36.00
tblTripsAndVMT	WorkerTripNumber	135.00	136.00
tblTripsAndVMT	WorkerTripNumber	23.00	24.00
tblTripsAndVMT	WorkerTripNumber	27.00	28.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.63
tblVehicleTrips	SU_TR	0.68	1.00

## NCPWF SVR - San Diego County APCD Air District, Winter

tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	74,571,187.50	769,600.00

## 2.0 Emissions Summary

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NCPWF SVR - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	9.4191	112.2511	59.6901	0.1403	13.0527	4.3794	17.4321	6.8549	4.0317	10.8866	0.0000	14,081.5779	14,081.5779	3.8485	0.0000	14,177.7905
2020	3.5700	32.6421	26.0160	0.0597	1.4828	1.4101	2.8929	0.4016	1.3123	1.7139	0.0000	5,886.3414	5,886.3414	1.1395	0.0000	5,914.8284
2021	30.0401	29.7433	25.1744	0.0592	1.4828	1.2109	2.6936	0.4016	1.1280	1.5278	0.0000	5,836.1212	5,836.1212	1.2453	0.0000	5,864.2374
<b>Maximum</b>	<b>30.0401</b>	<b>112.2511</b>	<b>59.6901</b>	<b>0.1403</b>	<b>13.0527</b>	<b>4.3794</b>	<b>17.4321</b>	<b>6.8549</b>	<b>4.0317</b>	<b>10.8866</b>	<b>0.0000</b>	<b>14,081.5779</b>	<b>14,081.5779</b>	<b>3.8485</b>	<b>0.0000</b>	<b>14,177.7905</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.2353	63.6071	66.9258	0.1403	6.2938	2.2703	8.5641	3.1984	2.2688	5.4672	0.0000	14,081.5779	14,081.5779	3.8485	0.0000	14,177.7905
2020	1.7105	25.3394	28.0174	0.0597	1.4828	1.1524	2.6351	0.4016	1.1504	1.5520	0.0000	5,886.3414	5,886.3414	1.1395	0.0000	5,914.8284
2021	30.0440	24.7050	30.8087	0.0592	1.4828	1.2215	2.6167	0.4016	1.2214	1.5343	0.0000	5,836.1212	5,836.1212	1.2453	0.0000	5,864.2374
<b>Maximum</b>	<b>30.0440</b>	<b>63.6071</b>	<b>66.9258</b>	<b>0.1403</b>	<b>6.2938</b>	<b>2.2703</b>	<b>8.5641</b>	<b>3.1984</b>	<b>2.2688</b>	<b>5.4672</b>	<b>0.0000</b>	<b>14,081.5779</b>	<b>14,081.5779</b>	<b>3.8485</b>	<b>0.0000</b>	<b>14,177.7905</b>

NCPWF SVR - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	18.68	34.92	-13.41	0.00	42.20	33.66	39.98	47.75	28.30	39.46	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4756</b>	<b>61.6139</b>	<b>41.9738</b>	<b>0.0943</b>	<b>2.9120</b>	<b>1.9573</b>	<b>4.8693</b>	<b>0.7783</b>	<b>1.9556</b>	<b>2.7339</b>		<b>9,890.2790</b>	<b>9,890.2790</b>	<b>1.1013</b>	<b>0.0000</b>	<b>9,917.8118</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836
Stationary	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313		6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>21.4756</b>	<b>61.6139</b>	<b>41.9738</b>	<b>0.0943</b>	<b>2.9120</b>	<b>1.9573</b>	<b>4.8693</b>	<b>0.7783</b>	<b>1.9556</b>	<b>2.7339</b>		<b>9,890.2790</b>	<b>9,890.2790</b>	<b>1.1013</b>	<b>0.0000</b>	<b>9,917.8118</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

NCPWF SVR - San Diego County APCD Air District, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Mass Grading	Grading	5/21/2019	7/17/2019	5	42	
2	Finish Grading	Grading	7/18/2019	12/4/2019	5	100	
3	Building Construction	Building Construction	12/5/2019	6/16/2021	5	400	
4	Paving	Paving	6/17/2021	6/25/2021	5	7	
5	Architectural Coating	Architectural Coating	6/26/2021	11/12/2021	5	100	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 483,703; Non-Residential Outdoor: 161,234; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

NCPWF SVR - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Mass Grading	Excavators	1	8.00	158	0.38
Mass Grading	Graders	2	8.00	187	0.41
Mass Grading	Off-Highway Trucks	1	8.00	402	0.38
Mass Grading	Plate Compactors	2	8.00	8	0.43
Mass Grading	Rubber Tired Dozers	2	8.00	247	0.40
Mass Grading	Scrapers	4	8.00	367	0.48
Mass Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Finish Grading	Graders	1	8.00	187	0.41
Finish Grading	Off-Highway Trucks	1	8.00	402	0.38
Finish Grading	Plate Compactors	2	8.00	8	0.43
Finish Grading	Scrapers	1	8.00	367	0.48
Finish Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Architectural Coating	Aerial Lifts	1	8.00	63	0.31

**Trips and VMT**

NCPWF SVR - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Mass Grading	14	36.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Grading	7	18.00	0.00	1,125.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	136.00	54.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	28.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Mass Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.2889	0.0000	12.2889	6.6482	0.0000	6.6482			0.0000			0.0000
Off-Road	9.0201	104.0122	56.7763	0.1165		4.3462	4.3462		4.0001	4.0001		11,508.268	11,508.268	3.6264		11,598.927
<b>Total</b>	<b>9.0201</b>	<b>104.0122</b>	<b>56.7763</b>	<b>0.1165</b>	<b>12.2889</b>	<b>4.3462</b>	<b>16.6351</b>	<b>6.6482</b>	<b>4.0001</b>	<b>10.6483</b>		<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.2 Mass Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2391	8.1282	1.8612	0.0209	0.4681	0.0311	0.4991	0.1283	0.0297	0.1580		2,279.2201	2,279.2201	0.2126		2,284.5346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1599	0.1108	1.0526	2.9500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		294.0890	294.0890	9.4900e-003		294.3262
<b>Total</b>	<b>0.3989</b>	<b>8.2389</b>	<b>2.9139</b>	<b>0.0239</b>	<b>0.7638</b>	<b>0.0332</b>	<b>0.7970</b>	<b>0.2067</b>	<b>0.0317</b>	<b>0.2384</b>		<b>2,573.3091</b>	<b>2,573.3091</b>	<b>0.2221</b>		<b>2,578.8608</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5300	0.0000	5.5300	2.9917	0.0000	2.9917			0.0000			0.0000
Off-Road	2.8364	55.3681	64.0120	0.1165		2.2371	2.2371		2.2371	2.2371	0.0000	11,508.2688	11,508.2688	3.6264		11,598.9297
<b>Total</b>	<b>2.8364</b>	<b>55.3681</b>	<b>64.0120</b>	<b>0.1165</b>	<b>5.5300</b>	<b>2.2371</b>	<b>7.7671</b>	<b>2.9917</b>	<b>2.2371</b>	<b>5.2288</b>	<b>0.0000</b>	<b>11,508.2688</b>	<b>11,508.2688</b>	<b>3.6264</b>		<b>11,598.9297</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.2 Mass Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2391	8.1282	1.8612	0.0209	0.4681	0.0311	0.4991	0.1283	0.0297	0.1580		2,279.2201	2,279.2201	0.2126		2,284.5346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1599	0.1108	1.0526	2.9500e-003	0.2957	2.1100e-003	0.2978	0.0784	1.9400e-003	0.0804		294.0890	294.0890	9.4900e-003		294.3262
<b>Total</b>	<b>0.3989</b>	<b>8.2389</b>	<b>2.9139</b>	<b>0.0239</b>	<b>0.7638</b>	<b>0.0332</b>	<b>0.7970</b>	<b>0.2067</b>	<b>0.0317</b>	<b>0.2384</b>		<b>2,573.3091</b>	<b>2,573.3091</b>	<b>0.2221</b>		<b>2,578.8608</b>

**3.3 Finish Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1028	0.0000	0.1028	0.0117	0.0000	0.0117			0.0000			0.0000
Off-Road	2.8077	31.8604	18.9226	0.0422		1.3102	1.3102		1.2070	1.2070		4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>2.8077</b>	<b>31.8604</b>	<b>18.9226</b>	<b>0.0422</b>	<b>0.1028</b>	<b>1.3102</b>	<b>1.4130</b>	<b>0.0117</b>	<b>1.2070</b>	<b>1.2186</b>		<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>



NCPWF SVR - San Diego County APCD Air District, Winter

**3.3 Finish Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1004	3.4138	0.7817	8.7800e-003	0.1966	0.0131	0.2096	0.0539	0.0125	0.0664		957.2725	957.2725	0.0893		959.5045
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
<b>Total</b>	<b>0.1803</b>	<b>3.4692</b>	<b>1.3080</b>	<b>0.0103</b>	<b>0.3445</b>	<b>0.0141</b>	<b>0.3586</b>	<b>0.0931</b>	<b>0.0135</b>	<b>0.1066</b>		<b>1,104.3169</b>	<b>1,104.3169</b>	<b>0.0940</b>		<b>1,106.6676</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0463	0.0000	0.0463	5.2400e-003	0.0000	5.2400e-003			0.0000			0.0000
Off-Road	1.0103	20.0646	23.2829	0.0422		0.8726	0.8726		0.8726	0.8726	0.0000	4,149.2157	4,149.2157	1.2981		4,181.6684
<b>Total</b>	<b>1.0103</b>	<b>20.0646</b>	<b>23.2829</b>	<b>0.0422</b>	<b>0.0463</b>	<b>0.8726</b>	<b>0.9188</b>	<b>5.2400e-003</b>	<b>0.8726</b>	<b>0.8778</b>	<b>0.0000</b>	<b>4,149.2157</b>	<b>4,149.2157</b>	<b>1.2981</b>		<b>4,181.6684</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.3 Finish Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1004	3.4138	0.7817	8.7800e-003	0.1966	0.0131	0.2096	0.0539	0.0125	0.0664		957.2725	957.2725	0.0893		959.5045
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
<b>Total</b>	<b>0.1803</b>	<b>3.4692</b>	<b>1.3080</b>	<b>0.0103</b>	<b>0.3445</b>	<b>0.0141</b>	<b>0.3586</b>	<b>0.0931</b>	<b>0.0135</b>	<b>0.1066</b>		<b>1,104.3169</b>	<b>1,104.3169</b>	<b>0.0940</b>		<b>1,106.6676</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0984	28.6373	21.1943	0.0345		1.5701	1.5701		1.4604	1.4604		3,326.9359	3,326.9359	0.9907		3,351.7031
<b>Total</b>	<b>3.0984</b>	<b>28.6373</b>	<b>21.1943</b>	<b>0.0345</b>		<b>1.5701</b>	<b>1.5701</b>		<b>1.4604</b>	<b>1.4604</b>		<b>3,326.9359</b>	<b>3,326.9359</b>	<b>0.9907</b>		<b>3,351.7031</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2592	6.7007	1.9165	0.0145	0.3656	0.0474	0.4130	0.1052	0.0454	0.1506		1,557.9014	1,557.9014	0.1313		1,561.1835
Worker	0.6040	0.4185	3.9766	0.0112	1.1172	7.9600e-003	1.1252	0.2963	7.3400e-003	0.3037		1,111.0027	1,111.0027	0.0359		1,111.8989
<b>Total</b>	<b>0.8632</b>	<b>7.1193</b>	<b>5.8930</b>	<b>0.0257</b>	<b>1.4828</b>	<b>0.0554</b>	<b>1.5381</b>	<b>0.4016</b>	<b>0.0527</b>	<b>0.4543</b>		<b>2,668.9041</b>	<b>2,668.9041</b>	<b>0.1671</b>		<b>2,673.0825</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,326.9359	3,326.9359	0.9907		3,351.7031
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,326.9359</b>	<b>3,326.9359</b>	<b>0.9907</b>		<b>3,351.7031</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2592	6.7007	1.9165	0.0145	0.3656	0.0474	0.4130	0.1052	0.0454	0.1506		1,557.9014	1,557.9014	0.1313		1,561.1835
Worker	0.6040	0.4185	3.9766	0.0112	1.1172	7.9600e-003	1.1252	0.2963	7.3400e-003	0.3037		1,111.0027	1,111.0027	0.0359		1,111.8989
<b>Total</b>	<b>0.8632</b>	<b>7.1193</b>	<b>5.8930</b>	<b>0.0257</b>	<b>1.4828</b>	<b>0.0554</b>	<b>1.5381</b>	<b>0.4016</b>	<b>0.0527</b>	<b>0.4543</b>		<b>2,668.9041</b>	<b>2,668.9041</b>	<b>0.1671</b>		<b>2,673.0825</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7935	26.1806	20.6600	0.0345		1.3719	1.3719		1.2760	1.2760		3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>2.7935</b>	<b>26.1806</b>	<b>20.6600</b>	<b>0.0345</b>		<b>1.3719</b>	<b>1.3719</b>		<b>1.2760</b>	<b>1.2760</b>		<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2113	6.0840	1.7215	0.0144	0.3656	0.0304	0.3959	0.1052	0.0290	0.1343		1,546.8960	1,546.8960	0.1245		1,550.0078
Worker	0.5652	0.3775	3.6346	0.0108	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,075.9395	1,075.9395	0.0324		1,076.7493
<b>Total</b>	<b>0.7766</b>	<b>6.4616</b>	<b>5.3561</b>	<b>0.0252</b>	<b>1.4828</b>	<b>0.0382</b>	<b>1.5210</b>	<b>0.4016</b>	<b>0.0363</b>	<b>0.4378</b>		<b>2,622.8354</b>	<b>2,622.8354</b>	<b>0.1569</b>		<b>2,626.7571</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.5060	3,263.5060	0.9826		3,288.0713
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.5060</b>	<b>3,263.5060</b>	<b>0.9826</b>		<b>3,288.0713</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2113	6.0840	1.7215	0.0144	0.3656	0.0304	0.3959	0.1052	0.0290	0.1343		1,546.8960	1,546.8960	0.1245		1,550.0078
Worker	0.5652	0.3775	3.6346	0.0108	1.1172	7.8400e-003	1.1251	0.2963	7.2200e-003	0.3036		1,075.9395	1,075.9395	0.0324		1,076.7493
<b>Total</b>	<b>0.7766</b>	<b>6.4616</b>	<b>5.3561</b>	<b>0.0252</b>	<b>1.4828</b>	<b>0.0382</b>	<b>1.5210</b>	<b>0.4016</b>	<b>0.0363</b>	<b>0.4378</b>		<b>2,622.8354</b>	<b>2,622.8354</b>	<b>0.1569</b>		<b>2,626.7571</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5183	23.9160	20.2085	0.0345		1.1911	1.1911		1.1077	1.1077		3,263.7123	3,263.7123	0.9754		3,288.0967
<b>Total</b>	<b>2.5183</b>	<b>23.9160</b>	<b>20.2085</b>	<b>0.0345</b>		<b>1.1911</b>	<b>1.1911</b>		<b>1.1077</b>	<b>1.1077</b>		<b>3,263.7123</b>	<b>3,263.7123</b>	<b>0.9754</b>		<b>3,288.0967</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1721	5.4842	1.5603	0.0143	0.3656	0.0120	0.3776	0.1052	0.0115	0.1167		1,532.624 2	1,532.624 2	0.1194		1,535.609 1
Worker	0.5335	0.3431	3.3908	0.0104	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,039.784 7	1,039.784 7	0.0299		1,040.531 5
<b>Total</b>	<b>0.7056</b>	<b>5.8272</b>	<b>4.9511</b>	<b>0.0247</b>	<b>1.4828</b>	<b>0.0197</b>	<b>1.5025</b>	<b>0.4016</b>	<b>0.0186</b>	<b>0.4202</b>		<b>2,572.408 9</b>	<b>2,572.408 9</b>	<b>0.1493</b>		<b>2,576.140 6</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9339	18.8778	22.6613	0.0345		1.1142	1.1142		1.1142	1.1142	0.0000	3,263.712 3	3,263.712 3	0.9754		3,288.096 7
<b>Total</b>	<b>0.9339</b>	<b>18.8778</b>	<b>22.6613</b>	<b>0.0345</b>		<b>1.1142</b>	<b>1.1142</b>		<b>1.1142</b>	<b>1.1142</b>	<b>0.0000</b>	<b>3,263.712 3</b>	<b>3,263.712 3</b>	<b>0.9754</b>		<b>3,288.096 7</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1721	5.4842	1.5603	0.0143	0.3656	0.0120	0.3776	0.1052	0.0115	0.1167		1,532.624 2	1,532.624 2	0.1194		1,535.609 1
Worker	0.5335	0.3431	3.3908	0.0104	1.1172	7.7200e-003	1.1249	0.2963	7.1100e-003	0.3034		1,039.784 7	1,039.784 7	0.0299		1,040.531 5
<b>Total</b>	<b>0.7056</b>	<b>5.8272</b>	<b>4.9511</b>	<b>0.0247</b>	<b>1.4828</b>	<b>0.0197</b>	<b>1.5025</b>	<b>0.4016</b>	<b>0.0186</b>	<b>0.4202</b>		<b>2,572.408 9</b>	<b>2,572.408 9</b>	<b>0.1493</b>		<b>2,576.140 6</b>

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5561	23.5289	24.5761	0.0452		1.2067	1.2067		1.1268	1.1268		4,357.608 4	4,357.608 4	1.2400		4,388.608 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.5561</b>	<b>23.5289</b>	<b>24.5761</b>	<b>0.0452</b>		<b>1.2067</b>	<b>1.2067</b>		<b>1.1268</b>	<b>1.1268</b>		<b>4,357.608 4</b>	<b>4,357.608 4</b>	<b>1.2400</b>		<b>4,388.608 9</b>



NCPWF SVR - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0941	0.0605	0.5984	1.8400e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		183.4914	183.4914	5.2700e-003		183.6232
<b>Total</b>	<b>0.0941</b>	<b>0.0605</b>	<b>0.5984</b>	<b>1.8400e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>183.4914</b>	<b>183.4914</b>	<b>5.2700e-003</b>		<b>183.6232</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0759	22.2742	30.2103	0.0452		1.2201	1.2201		1.2201	1.2201	0.0000	4,357.6084	4,357.6084	1.2400		4,388.6089
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0759</b>	<b>22.2742</b>	<b>30.2103</b>	<b>0.0452</b>		<b>1.2201</b>	<b>1.2201</b>		<b>1.2201</b>	<b>1.2201</b>	<b>0.0000</b>	<b>4,357.6084</b>	<b>4,357.6084</b>	<b>1.2400</b>		<b>4,388.6089</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0941	0.0605	0.5984	1.8400e-003	0.1972	1.3600e-003	0.1985	0.0523	1.2500e-003	0.0536		183.4914	183.4914	5.2700e-003		183.6232
<b>Total</b>	<b>0.0941</b>	<b>0.0605</b>	<b>0.5984</b>	<b>1.8400e-003</b>	<b>0.1972</b>	<b>1.3600e-003</b>	<b>0.1985</b>	<b>0.0523</b>	<b>1.2500e-003</b>	<b>0.0536</b>		<b>183.4914</b>	<b>183.4914</b>	<b>5.2700e-003</b>		<b>183.6232</b>

**3.6 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0375	0.6006	1.0941	1.6800e-003		0.0115	0.0115		0.0105	0.0105		162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>29.9303</b>	<b>0.6006</b>	<b>1.0941</b>	<b>1.6800e-003</b>		<b>0.0115</b>	<b>0.0115</b>		<b>0.0105</b>	<b>0.0105</b>		<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.6 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1098	0.0706	0.6981	2.1500e-003	0.2300	1.5900e-003	0.2316	0.0610	1.4600e-003	0.0625		214.0733	214.0733	6.1500e-003		214.2271
<b>Total</b>	<b>0.1098</b>	<b>0.0706</b>	<b>0.6981</b>	<b>2.1500e-003</b>	<b>0.2300</b>	<b>1.5900e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4600e-003</b>	<b>0.0625</b>		<b>214.0733</b>	<b>214.0733</b>	<b>6.1500e-003</b>		<b>214.2271</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	29.8928					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0413	0.9438	1.2745	1.6800e-003		0.0661	0.0661		0.0661	0.0661	0.0000	162.6199	162.6199	0.0526		163.9347
<b>Total</b>	<b>29.9342</b>	<b>0.9438</b>	<b>1.2745</b>	<b>1.6800e-003</b>		<b>0.0661</b>	<b>0.0661</b>		<b>0.0661</b>	<b>0.0661</b>	<b>0.0000</b>	<b>162.6199</b>	<b>162.6199</b>	<b>0.0526</b>		<b>163.9347</b>

NCPWF SVR - San Diego County APCD Air District, Winter

**3.6 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1098	0.0706	0.6981	2.1500e-003	0.2300	1.5900e-003	0.2316	0.0610	1.4600e-003	0.0625		214.0733	214.0733	6.1500e-003		214.2271
<b>Total</b>	<b>0.1098</b>	<b>0.0706</b>	<b>0.6981</b>	<b>2.1500e-003</b>	<b>0.2300</b>	<b>1.5900e-003</b>	<b>0.2316</b>	<b>0.0610</b>	<b>1.4600e-003</b>	<b>0.0625</b>		<b>214.0733</b>	<b>214.0733</b>	<b>6.1500e-003</b>		<b>214.2271</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCPWF SVR - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836
Unmitigated	0.6242	2.9037	8.4658	0.0312	2.9120	0.0260	2.9380	0.7783	0.0243	0.8025		3,174.0955	3,174.0955	0.1595		3,178.0836

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	32.25	201.68	322.47	416,990	416,990
Total	32.25	201.68	322.47	416,990	416,990

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

NCPWF SVR - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

NCPWF SVR - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
Unmitigated	7.7229	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>



NCPWF SVR - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.8190					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.9008					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0700e-003	3.0000e-004	0.0330	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004		0.0706	0.0706	1.9000e-004		0.0752
<b>Total</b>	<b>7.7229</b>	<b>3.0000e-004</b>	<b>0.0330</b>	<b>0.0000</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>1.2000e-004</b>	<b>1.2000e-004</b>		<b>0.0706</b>	<b>0.0706</b>	<b>1.9000e-004</b>		<b>0.0752</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCPWF SVR - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	8	50	1000	0.73	Diesel

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day										lb/day						
Emergency Generator - Diesel (750 - 9999 HP)	13.1285	58.7100	33.4750	0.0631		1.9313	1.9313		1.9313	1.9313			6,716.1130	6,716.1130	0.9416		6,739.6530
<b>Total</b>	<b>13.1285</b>	<b>58.7100</b>	<b>33.4750</b>	<b>0.0631</b>		<b>1.9313</b>	<b>1.9313</b>		<b>1.9313</b>	<b>1.9313</b>			<b>6,716.1130</b>	<b>6,716.1130</b>	<b>0.9416</b>		<b>6,739.6530</b>

**11.0 Vegetation**

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NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Annual

**NCPWF-SVR Pipeline-Open Trench**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	999.94	1000sqft	22.96	999,940.48	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

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Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

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Stationary Sources - Process Boilers EF - No stationary sources.  
 Off-road Equipment - See Section 7.2.1 for Construction Details.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	499970	0
tblAreaCoating	Area_Nonresidential_Interior	1499910	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	370.00	200.00
tblConstructionPhase	NumDays	20.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00

## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Annual

tblLandUse	BuildingSpaceSquareFeet	999,940.00	999,940.48
tblLandUse	LandUseSquareFeet	999,940.00	999,940.48
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pipeline Installation
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1,239.93	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,073.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,236,125.00	0.00

## 2.0 Emissions Summary

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NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0592	0.7489	0.3738	1.0700e-003	0.1155	0.0312	0.1467	0.0259	0.0287	0.0546	0.0000	102.0023	102.0023	0.0189	0.0000	102.4747
2019	0.4883	6.0814	3.2596	9.2800e-003	0.1713	0.2508	0.4220	0.0429	0.2310	0.2738	0.0000	876.2754	876.2754	0.1644	0.0000	880.3861
2020	0.1209	1.1454	1.2707	2.0800e-003	0.0261	0.0622	0.0884	6.9400e-003	0.0573	0.0642	0.0000	183.6961	183.6961	0.0525	0.0000	185.0092
2021	0.0374	0.3634	0.4265	6.9000e-004	5.5900e-003	0.0190	0.0246	1.4800e-003	0.0175	0.0190	0.0000	60.8980	60.8980	0.0183	0.0000	61.3547
<b>Maximum</b>	<b>0.4883</b>	<b>6.0814</b>	<b>3.2596</b>	<b>9.2800e-003</b>	<b>0.1713</b>	<b>0.2508</b>	<b>0.4220</b>	<b>0.0429</b>	<b>0.2310</b>	<b>0.2738</b>	<b>0.0000</b>	<b>876.2754</b>	<b>876.2754</b>	<b>0.1644</b>	<b>0.0000</b>	<b>880.3861</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0200	0.4731	0.3886	1.0700e-003	0.1017	0.0145	0.1162	0.0241	0.0144	0.0385	0.0000	102.0023	102.0023	0.0189	0.0000	102.4747
2019	0.1732	3.9990	3.4198	9.2800e-003	0.1574	0.1278	0.2852	0.0410	0.1275	0.1685	0.0000	876.2749	876.2749	0.1644	0.0000	880.3857
2020	0.0557	0.9241	1.4647	2.0800e-003	0.0261	0.0512	0.0774	6.9400e-003	0.0512	0.0582	0.0000	183.6959	183.6959	0.0525	0.0000	185.0090
2021	0.0179	0.3179	0.5005	6.9000e-004	5.5900e-003	0.0171	0.0227	1.4800e-003	0.0171	0.0186	0.0000	60.8979	60.8979	0.0183	0.0000	61.3546
<b>Maximum</b>	<b>0.1732</b>	<b>3.9990</b>	<b>3.4198</b>	<b>9.2800e-003</b>	<b>0.1574</b>	<b>0.1278</b>	<b>0.2852</b>	<b>0.0410</b>	<b>0.1275</b>	<b>0.1685</b>	<b>0.0000</b>	<b>876.2749</b>	<b>876.2749</b>	<b>0.1644</b>	<b>0.0000</b>	<b>880.3857</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>62.20</b>	<b>31.48</b>	<b>-8.31</b>	<b>0.00</b>	<b>8.68</b>	<b>42.03</b>	<b>26.44</b>	<b>4.73</b>	<b>37.14</b>	<b>31.07</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-3-2018	3-2-2019	2.3636	1.4769
2	3-3-2019	6-2-2019	2.3596	1.4909
3	6-3-2019	9-2-2019	2.3570	1.4883
4	9-3-2019	12-2-2019	0.1025	0.0647
7	6-3-2020	9-2-2020	0.4558	0.3513
8	9-3-2020	12-2-2020	0.5062	0.3903
9	12-3-2020	3-2-2021	0.4734	0.3860
10	3-3-2021	6-2-2021	0.0870	0.0729



NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Annual

		Highest	2.3636	1.4909
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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.7000e-004	9.0000e-005	9.2500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.7000e-004</b>	<b>9.0000e-005</b>	<b>9.2500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0179</b>	<b>0.0179</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0191</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.7000e-004	5.0000e-005	5.3600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	9.6300e-003	9.6300e-003	2.0000e-005	0.0000	0.0101
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.7000e-004</b>	<b>5.0000e-005</b>	<b>5.3600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>9.6300e-003</b>	<b>9.6300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0101</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>57.47</b>	<b>44.44</b>	<b>42.05</b>	<b>0.00</b>	<b>0.00</b>	<b>66.67</b>	<b>66.67</b>	<b>0.00</b>	<b>66.67</b>	<b>66.67</b>	<b>0.00</b>	<b>46.11</b>	<b>46.11</b>	<b>60.00</b>	<b>0.00</b>	<b>46.83</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	12/3/2018	9/6/2019	5	200	
2	Pipeline Installation	Building Construction	9/7/2019	6/12/2020	5	200	
3	Paving	Paving	6/13/2020	3/19/2021	5	200	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Pipeline Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	13,073.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline Installation	0	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0251	0.0000	0.0251	3.3100e-003	0.0000	3.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0512	0.5247	0.3145	4.9000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	44.6726	44.6726	0.0139	0.0000	45.0203
<b>Total</b>	<b>0.0512</b>	<b>0.5247</b>	<b>0.3145</b>	<b>4.9000e-004</b>	<b>0.0251</b>	<b>0.0303</b>	<b>0.0554</b>	<b>3.3100e-003</b>	<b>0.0279</b>	<b>0.0312</b>	<b>0.0000</b>	<b>44.6726</b>	<b>44.6726</b>	<b>0.0139</b>	<b>0.0000</b>	<b>45.0203</b>

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**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.3600e-003	0.2228	0.0465	5.5000e-004	0.0870	8.7000e-004	0.0878	0.0217	8.3000e-004	0.0225	0.0000	54.0853	54.0853	4.8800e-003	0.0000	54.2073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.3700e-003	0.0128	4.0000e-005	3.4000e-003	2.0000e-005	3.4300e-003	9.0000e-004	2.0000e-005	9.3000e-004	0.0000	3.2445	3.2445	1.1000e-004	0.0000	3.2472
<b>Total</b>	<b>8.0000e-003</b>	<b>0.2242</b>	<b>0.0593</b>	<b>5.9000e-004</b>	<b>0.0904</b>	<b>8.9000e-004</b>	<b>0.0913</b>	<b>0.0226</b>	<b>8.5000e-004</b>	<b>0.0235</b>	<b>0.0000</b>	<b>57.3297</b>	<b>57.3297</b>	<b>4.9900e-003</b>	<b>0.0000</b>	<b>57.4545</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0113	0.0000	0.0113	1.4900e-003	0.0000	1.4900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.2489	0.3292	4.9000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	44.6725	44.6725	0.0139	0.0000	45.0202
<b>Total</b>	<b>0.0120</b>	<b>0.2489</b>	<b>0.3292</b>	<b>4.9000e-004</b>	<b>0.0113</b>	<b>0.0136</b>	<b>0.0249</b>	<b>1.4900e-003</b>	<b>0.0136</b>	<b>0.0151</b>	<b>0.0000</b>	<b>44.6725</b>	<b>44.6725</b>	<b>0.0139</b>	<b>0.0000</b>	<b>45.0202</b>

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**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.3600e-003	0.2228	0.0465	5.5000e-004	0.0870	8.7000e-004	0.0878	0.0217	8.3000e-004	0.0225	0.0000	54.0853	54.0853	4.8800e-003	0.0000	54.2073
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.3700e-003	0.0128	4.0000e-005	3.4000e-003	2.0000e-005	3.4300e-003	9.0000e-004	2.0000e-005	9.3000e-004	0.0000	3.2445	3.2445	1.1000e-004	0.0000	3.2472
<b>Total</b>	<b>8.0000e-003</b>	<b>0.2242</b>	<b>0.0593</b>	<b>5.9000e-004</b>	<b>0.0904</b>	<b>8.9000e-004</b>	<b>0.0913</b>	<b>0.0226</b>	<b>8.5000e-004</b>	<b>0.0235</b>	<b>0.0000</b>	<b>57.3297</b>	<b>57.3297</b>	<b>4.9900e-003</b>	<b>0.0000</b>	<b>57.4545</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0251	0.0000	0.0251	3.3100e-003	0.0000	3.3100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4109	4.1794	2.6477	4.1600e-003		0.2374	0.2374		0.2184	0.2184	0.0000	374.3797	374.3797	0.1185	0.0000	377.3409
<b>Total</b>	<b>0.4109</b>	<b>4.1794</b>	<b>2.6477</b>	<b>4.1600e-003</b>	<b>0.0251</b>	<b>0.2374</b>	<b>0.2625</b>	<b>3.3100e-003</b>	<b>0.2184</b>	<b>0.2217</b>	<b>0.0000</b>	<b>374.3797</b>	<b>374.3797</b>	<b>0.1185</b>	<b>0.0000</b>	<b>377.3409</b>

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**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0514	1.7928	0.3911	4.6100e-003	0.1089	6.7000e-003	0.1156	0.0297	6.4100e-003	0.0361	0.0000	456.0759	456.0759	0.0413	0.0000	457.1082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0129	0.0105	0.0986	3.0000e-004	0.0290	2.0000e-004	0.0292	7.7100e-003	1.9000e-004	7.9000e-003	0.0000	26.8201	26.8201	8.3000e-004	0.0000	26.8410
<b>Total</b>	<b>0.0643</b>	<b>1.8032</b>	<b>0.4897</b>	<b>4.9100e-003</b>	<b>0.1379</b>	<b>6.9000e-003</b>	<b>0.1449</b>	<b>0.0374</b>	<b>6.6000e-003</b>	<b>0.0440</b>	<b>0.0000</b>	<b>482.8960</b>	<b>482.8960</b>	<b>0.0421</b>	<b>0.0000</b>	<b>483.9492</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0113	0.0000	0.0113	1.4900e-003	0.0000	1.4900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1021	2.1217	2.8063	4.1600e-003		0.1158	0.1158		0.1158	0.1158	0.0000	374.3792	374.3792	0.1185	0.0000	377.3405
<b>Total</b>	<b>0.1021</b>	<b>2.1217</b>	<b>2.8063</b>	<b>4.1600e-003</b>	<b>0.0113</b>	<b>0.1158</b>	<b>0.1271</b>	<b>1.4900e-003</b>	<b>0.1158</b>	<b>0.1173</b>	<b>0.0000</b>	<b>374.3792</b>	<b>374.3792</b>	<b>0.1185</b>	<b>0.0000</b>	<b>377.3405</b>

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**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0514	1.7928	0.3911	4.6100e-003	0.1089	6.7000e-003	0.1156	0.0297	6.4100e-003	0.0361	0.0000	456.0759	456.0759	0.0413	0.0000	457.1082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0129	0.0105	0.0986	3.0000e-004	0.0290	2.0000e-004	0.0292	7.7100e-003	1.9000e-004	7.9000e-003	0.0000	26.8201	26.8201	8.3000e-004	0.0000	26.8410
<b>Total</b>	<b>0.0643</b>	<b>1.8032</b>	<b>0.4897</b>	<b>4.9100e-003</b>	<b>0.1379</b>	<b>6.9000e-003</b>	<b>0.1449</b>	<b>0.0374</b>	<b>6.6000e-003</b>	<b>0.0440</b>	<b>0.0000</b>	<b>482.8960</b>	<b>482.8960</b>	<b>0.0421</b>	<b>0.0000</b>	<b>483.9492</b>

**3.3 Pipeline Installation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.5500e-003	0.0958	0.0944	1.3000e-004		6.4000e-003	6.4000e-003		5.8900e-003	5.8900e-003	0.0000	11.4389	11.4389	3.6200e-003	0.0000	11.5294
<b>Total</b>	<b>9.5500e-003</b>	<b>0.0958</b>	<b>0.0944</b>	<b>1.3000e-004</b>		<b>6.4000e-003</b>	<b>6.4000e-003</b>		<b>5.8900e-003</b>	<b>5.8900e-003</b>	<b>0.0000</b>	<b>11.4389</b>	<b>11.4389</b>	<b>3.6200e-003</b>	<b>0.0000</b>	<b>11.5294</b>



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**3.3 Pipeline Installation - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6300e-003	2.9500e-003	0.0278	8.0000e-005	8.1800e-003	6.0000e-005	8.2400e-003	2.1700e-003	5.0000e-005	2.2300e-003	0.0000	7.5608	7.5608	2.4000e-004	0.0000	7.5667
<b>Total</b>	<b>3.6300e-003</b>	<b>2.9500e-003</b>	<b>0.0278</b>	<b>8.0000e-005</b>	<b>8.1800e-003</b>	<b>6.0000e-005</b>	<b>8.2400e-003</b>	<b>2.1700e-003</b>	<b>5.0000e-005</b>	<b>2.2300e-003</b>	<b>0.0000</b>	<b>7.5608</b>	<b>7.5608</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>7.5667</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1100e-003	0.0711	0.0960	1.3000e-004		4.9800e-003	4.9800e-003		4.9800e-003	4.9800e-003	0.0000	11.4389	11.4389	3.6200e-003	0.0000	11.5294
<b>Total</b>	<b>3.1100e-003</b>	<b>0.0711</b>	<b>0.0960</b>	<b>1.3000e-004</b>		<b>4.9800e-003</b>	<b>4.9800e-003</b>		<b>4.9800e-003</b>	<b>4.9800e-003</b>	<b>0.0000</b>	<b>11.4389</b>	<b>11.4389</b>	<b>3.6200e-003</b>	<b>0.0000</b>	<b>11.5294</b>

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**3.3 Pipeline Installation - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6300e-003	2.9500e-003	0.0278	8.0000e-005	8.1800e-003	6.0000e-005	8.2400e-003	2.1700e-003	5.0000e-005	2.2300e-003	0.0000	7.5608	7.5608	2.4000e-004	0.0000	7.5667
<b>Total</b>	<b>3.6300e-003</b>	<b>2.9500e-003</b>	<b>0.0278</b>	<b>8.0000e-005</b>	<b>8.1800e-003</b>	<b>6.0000e-005</b>	<b>8.2400e-003</b>	<b>2.1700e-003</b>	<b>5.0000e-005</b>	<b>2.2300e-003</b>	<b>0.0000</b>	<b>7.5608</b>	<b>7.5608</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>7.5667</b>

**3.3 Pipeline Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0124	0.1242	0.1345	1.8000e-004		7.8500e-003	7.8500e-003		7.2300e-003	7.2300e-003	0.0000	16.0983	16.0983	5.2100e-003	0.0000	16.2285
<b>Total</b>	<b>0.0124</b>	<b>0.1242</b>	<b>0.1345</b>	<b>1.8000e-004</b>		<b>7.8500e-003</b>	<b>7.8500e-003</b>		<b>7.2300e-003</b>	<b>7.2300e-003</b>	<b>0.0000</b>	<b>16.0983</b>	<b>16.0983</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>16.2285</b>

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**3.3 Pipeline Installation - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8900e-003	3.8300e-003	0.0366	1.2000e-004	0.0118	8.0000e-005	0.0119	3.1300e-003	7.0000e-005	3.2000e-003	0.0000	10.5365	10.5365	3.1000e-004	0.0000	10.5441
<b>Total</b>	<b>4.8900e-003</b>	<b>3.8300e-003</b>	<b>0.0366</b>	<b>1.2000e-004</b>	<b>0.0118</b>	<b>8.0000e-005</b>	<b>0.0119</b>	<b>3.1300e-003</b>	<b>7.0000e-005</b>	<b>3.2000e-003</b>	<b>0.0000</b>	<b>10.5365</b>	<b>10.5365</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>10.5441</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4800e-003	0.1023	0.1382	1.8000e-004		7.1700e-003	7.1700e-003		7.1700e-003	7.1700e-003	0.0000	16.0983	16.0983	5.2100e-003	0.0000	16.2285
<b>Total</b>	<b>4.4800e-003</b>	<b>0.1023</b>	<b>0.1382</b>	<b>1.8000e-004</b>		<b>7.1700e-003</b>	<b>7.1700e-003</b>		<b>7.1700e-003</b>	<b>7.1700e-003</b>	<b>0.0000</b>	<b>16.0983</b>	<b>16.0983</b>	<b>5.2100e-003</b>	<b>0.0000</b>	<b>16.2285</b>

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**3.3 Pipeline Installation - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8900e-003	3.8300e-003	0.0366	1.2000e-004	0.0118	8.0000e-005	0.0119	3.1300e-003	7.0000e-005	3.2000e-003	0.0000	10.5365	10.5365	3.1000e-004	0.0000	10.5441
<b>Total</b>	<b>4.8900e-003</b>	<b>3.8300e-003</b>	<b>0.0366</b>	<b>1.2000e-004</b>	<b>0.0118</b>	<b>8.0000e-005</b>	<b>0.0119</b>	<b>3.1300e-003</b>	<b>7.0000e-005</b>	<b>3.2000e-003</b>	<b>0.0000</b>	<b>10.5365</b>	<b>10.5365</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>10.5441</b>

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0977	1.0127	1.0550	1.6400e-003		0.0542	0.0542		0.0499	0.0499	0.0000	144.2032	144.2032	0.0466	0.0000	145.3692
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0977</b>	<b>1.0127</b>	<b>1.0550</b>	<b>1.6400e-003</b>		<b>0.0542</b>	<b>0.0542</b>		<b>0.0499</b>	<b>0.0499</b>	<b>0.0000</b>	<b>144.2032</b>	<b>144.2032</b>	<b>0.0466</b>	<b>0.0000</b>	<b>145.3692</b>

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**3.4 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9700e-003	4.6700e-003	0.0447	1.4000e-004	0.0144	1.0000e-004	0.0145	3.8200e-003	9.0000e-005	3.9100e-003	0.0000	12.8581	12.8581	3.7000e-004	0.0000	12.8674
<b>Total</b>	<b>5.9700e-003</b>	<b>4.6700e-003</b>	<b>0.0447</b>	<b>1.4000e-004</b>	<b>0.0144</b>	<b>1.0000e-004</b>	<b>0.0145</b>	<b>3.8200e-003</b>	<b>9.0000e-005</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>12.8581</b>	<b>12.8581</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>12.8674</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0404	0.8133	1.2453	1.6400e-003		0.0439	0.0439		0.0439	0.0439	0.0000	144.2030	144.2030	0.0466	0.0000	145.3690
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0404</b>	<b>0.8133</b>	<b>1.2453</b>	<b>1.6400e-003</b>		<b>0.0439</b>	<b>0.0439</b>		<b>0.0439</b>	<b>0.0439</b>	<b>0.0000</b>	<b>144.2030</b>	<b>144.2030</b>	<b>0.0466</b>	<b>0.0000</b>	<b>145.3690</b>

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**3.4 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9700e-003	4.6700e-003	0.0447	1.4000e-004	0.0144	1.0000e-004	0.0145	3.8200e-003	9.0000e-005	3.9100e-003	0.0000	12.8581	12.8581	3.7000e-004	0.0000	12.8674
<b>Total</b>	<b>5.9700e-003</b>	<b>4.6700e-003</b>	<b>0.0447</b>	<b>1.4000e-004</b>	<b>0.0144</b>	<b>1.0000e-004</b>	<b>0.0145</b>	<b>3.8200e-003</b>	<b>9.0000e-005</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>12.8581</b>	<b>12.8581</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>12.8674</b>

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0352	0.3617	0.4103	6.4000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	56.0657	56.0657	0.0181	0.0000	56.5191
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0352</b>	<b>0.3617</b>	<b>0.4103</b>	<b>6.4000e-004</b>		<b>0.0190</b>	<b>0.0190</b>		<b>0.0175</b>	<b>0.0175</b>	<b>0.0000</b>	<b>56.0657</b>	<b>56.0657</b>	<b>0.0181</b>	<b>0.0000</b>	<b>56.5191</b>

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**3.4 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1900e-003	1.6500e-003	0.0162	5.0000e-005	5.5900e-003	4.0000e-005	5.6200e-003	1.4800e-003	4.0000e-005	1.5200e-003	0.0000	4.8323	4.8323	1.3000e-004	0.0000	4.8356
<b>Total</b>	<b>2.1900e-003</b>	<b>1.6500e-003</b>	<b>0.0162</b>	<b>5.0000e-005</b>	<b>5.5900e-003</b>	<b>4.0000e-005</b>	<b>5.6200e-003</b>	<b>1.4800e-003</b>	<b>4.0000e-005</b>	<b>1.5200e-003</b>	<b>0.0000</b>	<b>4.8323</b>	<b>4.8323</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.8356</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.3163	0.4843	6.4000e-004		0.0171	0.0171		0.0171	0.0171	0.0000	56.0657	56.0657	0.0181	0.0000	56.5190
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0157</b>	<b>0.3163</b>	<b>0.4843</b>	<b>6.4000e-004</b>		<b>0.0171</b>	<b>0.0171</b>		<b>0.0171</b>	<b>0.0171</b>	<b>0.0000</b>	<b>56.0657</b>	<b>56.0657</b>	<b>0.0181</b>	<b>0.0000</b>	<b>56.5190</b>

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**3.4 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1900e-003	1.6500e-003	0.0162	5.0000e-005	5.5900e-003	4.0000e-005	5.6200e-003	1.4800e-003	4.0000e-005	1.5200e-003	0.0000	4.8323	4.8323	1.3000e-004	0.0000	4.8356
<b>Total</b>	<b>2.1900e-003</b>	<b>1.6500e-003</b>	<b>0.0162</b>	<b>5.0000e-005</b>	<b>5.5900e-003</b>	<b>4.0000e-005</b>	<b>5.6200e-003</b>	<b>1.4800e-003</b>	<b>4.0000e-005</b>	<b>1.5200e-003</b>	<b>0.0000</b>	<b>4.8323</b>	<b>4.8323</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.8356</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.7000e-004	5.0000e-005	5.3600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	9.6300e-003	9.6300e-003	2.0000e-005	0.0000	0.0101
Unmitigated	8.7000e-004	9.0000e-005	9.2500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.7000e-004	9.0000e-005	9.2500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
<b>Total</b>	<b>8.7000e-004</b>	<b>9.0000e-005</b>	<b>9.2500e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0179</b>	<b>0.0179</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0191</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.7000e-004	5.0000e-005	5.3600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	9.6300e-003	9.6300e-003	2.0000e-005	0.0000	0.0101
<b>Total</b>	<b>3.7000e-004</b>	<b>5.0000e-005</b>	<b>5.3600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>9.6300e-003</b>	<b>9.6300e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0101</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**NCPWF-SVR Pipeline-Open Trench**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	999.94	1000sqft	22.96	999,940.48	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

Stationary Sources - Process Boilers EF - No stationary sources.  
 Off-road Equipment - See Section 7.2.1 for Construction Details.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	499970	0
tblAreaCoating	Area_Nonresidential_Interior	1499910	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	370.00	200.00
tblConstructionPhase	NumDays	20.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00

## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

tblLandUse	BuildingSpaceSquareFeet	999,940.00	999,940.48
tblLandUse	LandUseSquareFeet	999,940.00	999,940.48
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pipeline Installation
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1,239.93	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,073.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,236,125.00	0.00

## 2.0 Emissions Summary

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NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	5.6316	70.8772	35.5506	0.1028	9.0918	2.9697	12.0615	2.2423	2.7352	4.9775	0.0000	10,767.0003	10,767.0003	1.9760	0.0000	10,816.4003
2019	5.2992	66.4363	35.0046	0.1019	1.8269	2.7290	4.5559	0.4591	2.5134	2.9725	0.0000	10,616.6608	10,616.6608	1.9703	0.0000	10,665.9192
2020	1.4379	14.1243	15.3193	0.0249	0.2044	0.7542	0.9585	0.0542	0.6938	0.7480	0.0000	2,415.4322	2,415.4322	0.7201	0.0000	2,433.4339
2021	1.3324	12.9726	15.2785	0.0248	0.2044	0.6791	0.8835	0.0542	0.6248	0.6790	0.0000	2,407.9287	2,407.9287	0.7195	0.0000	2,425.9147
<b>Maximum</b>	<b>5.6316</b>	<b>70.8772</b>	<b>35.5506</b>	<b>0.1028</b>	<b>9.0918</b>	<b>2.9697</b>	<b>12.0615</b>	<b>2.2423</b>	<b>2.7352</b>	<b>4.9775</b>	<b>0.0000</b>	<b>10,767.0003</b>	<b>10,767.0003</b>	<b>1.9760</b>	<b>0.0000</b>	<b>10,816.4003</b>





NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.6700e-003	9.5000e-004	0.1028	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2188	0.2188	5.9000e-004		0.2335
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.6700e-003</b>	<b>9.5000e-004</b>	<b>0.1028</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.7000e-004</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>0.2188</b>	<b>0.2188</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>0.2335</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0900e-003	5.3000e-004	0.0595	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.1179	0.1179	2.5000e-004		0.1241
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>4.0900e-003</b>	<b>5.3000e-004</b>	<b>0.0595</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.1179</b>	<b>0.1179</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.1241</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.70	44.21	42.07	100.00	0.00	56.76	56.76	0.00	56.76	56.76	0.00	46.11	46.11	57.63	0.00	46.84

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	12/3/2018	9/6/2019	5	200	
2	Pipeline Installation	Building Construction	9/7/2019	6/12/2020	5	200	
3	Paving	Paving	6/13/2020	3/19/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Pipeline Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	13,073.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline Installation	0	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2513	0.0000	0.2513	0.0331	0.0000	0.0331			0.0000			0.0000
Off-Road	4.8802	49.9681	29.9542	0.0466		2.8856	2.8856		2.6548	2.6548		4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>4.8802</b>	<b>49.9681</b>	<b>29.9542</b>	<b>0.0466</b>	<b>0.2513</b>	<b>2.8856</b>	<b>3.1369</b>	<b>0.0331</b>	<b>2.6548</b>	<b>2.6879</b>		<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5983	20.7909	4.2880	0.0526	8.5085	0.0818	8.5903	2.1211	0.0782	2.1994		5,717.8331	5,717.8331	0.5040		5,730.4338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.7514</b>	<b>20.9091</b>	<b>5.5964</b>	<b>0.0562</b>	<b>8.8406</b>	<b>0.0841</b>	<b>8.9247</b>	<b>2.2092</b>	<b>0.0804</b>	<b>2.2896</b>		<b>6,077.1836</b>	<b>6,077.1836</b>	<b>0.5160</b>		<b>6,090.0835</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0149	0.0000	0.0149			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>	<b>0.1131</b>	<b>1.2942</b>	<b>1.4072</b>	<b>0.0149</b>	<b>1.2942</b>	<b>1.3091</b>	<b>0.0000</b>	<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5983	20.7909	4.2880	0.0526	8.5085	0.0818	8.5903	2.1211	0.0782	2.1994		5,717.8331	5,717.8331	0.5040		5,730.4338
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.7514</b>	<b>20.9091</b>	<b>5.5964</b>	<b>0.0562</b>	<b>8.8406</b>	<b>0.0841</b>	<b>8.9247</b>	<b>2.2092</b>	<b>0.0804</b>	<b>2.2896</b>		<b>6,077.1836</b>	<b>6,077.1836</b>	<b>0.5160</b>		<b>6,090.0835</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2513	0.0000	0.2513	0.0331	0.0000	0.0331			0.0000			0.0000
Off-Road	4.5905	46.6967	29.5835	0.0465		2.6526	2.6526		2.4404	2.4404		4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>4.5905</b>	<b>46.6967</b>	<b>29.5835</b>	<b>0.0465</b>	<b>0.2513</b>	<b>2.6526</b>	<b>2.9039</b>	<b>0.0331</b>	<b>2.4404</b>	<b>2.4735</b>		<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5674	19.6339	4.2382	0.0519	1.2436	0.0741	1.3177	0.3379	0.0709	0.4088		5,657.1624	5,657.1624	0.5006		5,669.6782
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.7087</b>	<b>19.7396</b>	<b>5.4211</b>	<b>0.0554</b>	<b>1.5757</b>	<b>0.0764</b>	<b>1.6521</b>	<b>0.4260</b>	<b>0.0730</b>	<b>0.4990</b>		<b>6,005.6781</b>	<b>6,005.6781</b>	<b>0.5115</b>		<b>6,018.4649</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0149	0.0000	0.0149			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0465		1.2942	1.2942		1.2942	1.2942	0.0000	4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0465</b>	<b>0.1131</b>	<b>1.2942</b>	<b>1.4072</b>	<b>0.0149</b>	<b>1.2942</b>	<b>1.3091</b>	<b>0.0000</b>	<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5674	19.6339	4.2382	0.0519	1.2436	0.0741	1.3177	0.3379	0.0709	0.4088		5,657.1624	5,657.1624	0.5006		5,669.6782
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.7087</b>	<b>19.7396</b>	<b>5.4211</b>	<b>0.0554</b>	<b>1.5757</b>	<b>0.0764</b>	<b>1.6521</b>	<b>0.4260</b>	<b>0.0730</b>	<b>0.4990</b>		<b>6,005.6781</b>	<b>6,005.6781</b>	<b>0.5115</b>		<b>6,018.4649</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Pipeline Installation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>		<b>0.1560</b>	<b>0.1560</b>		<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0870	0.0651	0.7279	2.1500e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		214.4712	214.4712	6.6700e-003		214.6379
<b>Total</b>	<b>0.0870</b>	<b>0.0651</b>	<b>0.7279</b>	<b>2.1500e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>214.4712</b>	<b>214.4712</b>	<b>6.6700e-003</b>		<b>214.6379</b>



NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Pipeline Installation - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>		<b>0.1215</b>	<b>0.1215</b>		<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0870	0.0651	0.7279	2.1500e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		214.4712	214.4712	6.6700e-003		214.6379
<b>Total</b>	<b>0.0870</b>	<b>0.0651</b>	<b>0.7279</b>	<b>2.1500e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>214.4712</b>	<b>214.4712</b>	<b>6.6700e-003</b>		<b>214.6379</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Pipeline Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>		<b>0.1331</b>	<b>0.1331</b>		<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.3 Pipeline Installation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>		<b>0.1215</b>	<b>0.1215</b>		<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3566</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0814	0.0588	0.6673	2.0800e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		207.6987	207.6987	6.0400e-003		207.8498
<b>Total</b>	<b>0.0814</b>	<b>0.0588</b>	<b>0.6673</b>	<b>2.0800e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>207.6987</b>	<b>207.6987</b>	<b>6.0400e-003</b>		<b>207.8498</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0768	0.0535	0.6252	2.0100e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		200.7178	200.7178	5.5900e-003		200.8575
<b>Total</b>	<b>0.0768</b>	<b>0.0535</b>	<b>0.6252</b>	<b>2.0100e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>200.7178</b>	<b>200.7178</b>	<b>5.5900e-003</b>		<b>200.8575</b>

**4.0 Operational Detail - Mobile**

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122



NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0900e-003	5.3000e-004	0.0595	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.1179	0.1179	2.5000e-004		0.1241
Unmitigated	9.6700e-003	9.5000e-004	0.1028	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2188	0.2188	5.9000e-004		0.2335

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6700e-003	9.5000e-004	0.1028	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2188	0.2188	5.9000e-004		0.2335
<b>Total</b>	<b>9.6700e-003</b>	<b>9.5000e-004</b>	<b>0.1028</b>	<b>1.0000e-005</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>0.2188</b>	<b>0.2188</b>	<b>5.9000e-004</b>		<b>0.2335</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0900e-003	5.3000e-004	0.0595	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.1179	0.1179	2.5000e-004		0.1241
<b>Total</b>	<b>4.0900e-003</b>	<b>5.3000e-004</b>	<b>0.0595</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.1179</b>	<b>0.1179</b>	<b>2.5000e-004</b>		<b>0.1241</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Summer

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**NCPWF-SVR Pipeline-Open Trench**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	999.94	1000sqft	22.96	999,940.48	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

Stationary Sources - Process Boilers EF - No stationary sources.  
 Off-road Equipment - See Section 7.2.1 for Construction Details.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	499970	0
tblAreaCoating	Area_Nonresidential_Interior	1499910	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	370.00	200.00
tblConstructionPhase	NumDays	20.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00



## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

tblLandUse	BuildingSpaceSquareFeet	999,940.00	999,940.48
tblLandUse	LandUseSquareFeet	999,940.00	999,940.48
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Pipeline Installation
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	1,239.93	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	13,073.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	231,236,125.00	0.00

## 2.0 Emissions Summary

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NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	5.6726	71.1141	35.7806	0.1017	9.0918	2.9717	12.0635	2.2423	2.7370	4.9793	0.0000	10,649.9878	10,649.9878	1.9942	0.0000	10,699.8424
2019	5.3375	66.6505	35.2202	0.1008	1.8269	2.7307	4.5577	0.4591	2.5151	2.9742	0.0000	10,499.9835	10,499.9835	1.9878	0.0000	10,549.6786
2020	1.4509	14.1315	15.2683	0.0248	0.2044	0.7542	0.9585	0.0542	0.6938	0.7480	0.0000	2,402.6278	2,402.6278	0.7197	0.0000	2,420.6201
2021	1.3448	12.9791	15.2291	0.0247	0.2044	0.6791	0.8835	0.0542	0.6248	0.6790	0.0000	2,395.5515	2,395.5515	0.7191	0.0000	2,413.5286
<b>Maximum</b>	<b>5.6726</b>	<b>71.1141</b>	<b>35.7806</b>	<b>0.1017</b>	<b>9.0918</b>	<b>2.9717</b>	<b>12.0635</b>	<b>2.2423</b>	<b>2.7370</b>	<b>4.9793</b>	<b>0.0000</b>	<b>10,649.9878</b>	<b>10,649.9878</b>	<b>1.9942</b>	<b>0.0000</b>	<b>10,699.8424</b>



NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.6700e-003	9.5000e-004	0.1028	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2188	0.2188	5.9000e-004		0.2335
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.6700e-003</b>	<b>9.5000e-004</b>	<b>0.1028</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.7000e-004</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>0.2188</b>	<b>0.2188</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>0.2335</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0900e-003	5.3000e-004	0.0595	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.1179	0.1179	2.5000e-004		0.1241
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>4.0900e-003</b>	<b>5.3000e-004</b>	<b>0.0595</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.1179</b>	<b>0.1179</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.1241</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.70	44.21	42.07	100.00	0.00	56.76	56.76	0.00	56.76	56.76	0.00	46.11	46.11	57.63	0.00	46.84

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	12/3/2018	9/6/2019	5	200	
2	Pipeline Installation	Building Construction	9/7/2019	6/12/2020	5	200	
3	Paving	Paving	6/13/2020	3/19/2021	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Pipeline Installation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	13,073.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline Installation	0	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	16.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2513	0.0000	0.2513	0.0331	0.0000	0.0331			0.0000			0.0000
Off-Road	4.8802	49.9681	29.9542	0.0466		2.8856	2.8856		2.6548	2.6548		4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>4.8802</b>	<b>49.9681</b>	<b>29.9542</b>	<b>0.0466</b>	<b>0.2513</b>	<b>2.8856</b>	<b>3.1369</b>	<b>0.0331</b>	<b>2.6548</b>	<b>2.6879</b>		<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6155	21.0132	4.6103	0.0517	8.5085	0.0837	8.5922	2.1211	0.0801	2.2012		5,622.9507	5,622.9507	0.5229		5,636.0235
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.7924</b>	<b>21.1460</b>	<b>5.8263</b>	<b>0.0551</b>	<b>8.8406</b>	<b>0.0860</b>	<b>8.9266</b>	<b>2.2092</b>	<b>0.0822</b>	<b>2.2914</b>		<b>5,960.1711</b>	<b>5,960.1711</b>	<b>0.5342</b>		<b>5,973.5255</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0149	0.0000	0.0149			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>	<b>0.1131</b>	<b>1.2942</b>	<b>1.4072</b>	<b>0.0149</b>	<b>1.2942</b>	<b>1.3091</b>	<b>0.0000</b>	<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6155	21.0132	4.6103	0.0517	8.5085	0.0837	8.5922	2.1211	0.0801	2.2012		5,622.9507	5,622.9507	0.5229		5,636.0235
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.7924</b>	<b>21.1460</b>	<b>5.8263</b>	<b>0.0551</b>	<b>8.8406</b>	<b>0.0860</b>	<b>8.9266</b>	<b>2.2092</b>	<b>0.0822</b>	<b>2.2914</b>		<b>5,960.1711</b>	<b>5,960.1711</b>	<b>0.5342</b>		<b>5,973.5255</b>



NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2513	0.0000	0.2513	0.0331	0.0000	0.0331			0.0000			0.0000
Off-Road	4.5905	46.6967	29.5835	0.0465		2.6526	2.6526		2.4404	2.4404		4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>4.5905</b>	<b>46.6967</b>	<b>29.5835</b>	<b>0.0465</b>	<b>0.2513</b>	<b>2.6526</b>	<b>2.9039</b>	<b>0.0331</b>	<b>2.4404</b>	<b>2.4735</b>		<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5834	19.8351	4.5420	0.0510	1.2436	0.0758	1.3194	0.3379	0.0725	0.4105		5,561.9656	5,561.9656	0.5188		5,574.9346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.7470</b>	<b>19.9538</b>	<b>5.6367</b>	<b>0.0543</b>	<b>1.5757</b>	<b>0.0781</b>	<b>1.6538</b>	<b>0.4260</b>	<b>0.0746</b>	<b>0.5006</b>		<b>5,889.0008</b>	<b>5,889.0008</b>	<b>0.5289</b>		<b>5,902.2243</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1131	0.0000	0.1131	0.0149	0.0000	0.0149			0.0000			0.0000
Off-Road	1.1413	23.7057	31.3555	0.0465		1.2942	1.2942		1.2942	1.2942	0.0000	4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0465</b>	<b>0.1131</b>	<b>1.2942</b>	<b>1.4072</b>	<b>0.0149</b>	<b>1.2942</b>	<b>1.3091</b>	<b>0.0000</b>	<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5834	19.8351	4.5420	0.0510	1.2436	0.0758	1.3194	0.3379	0.0725	0.4105		5,561.9656	5,561.9656	0.5188		5,574.9346
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.7470</b>	<b>19.9538</b>	<b>5.6367</b>	<b>0.0543</b>	<b>1.5757</b>	<b>0.0781</b>	<b>1.6538</b>	<b>0.4260</b>	<b>0.0746</b>	<b>0.5006</b>		<b>5,889.0008</b>	<b>5,889.0008</b>	<b>0.5289</b>		<b>5,902.2243</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Pipeline Installation - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2328	2.3374	2.3027	3.1100e-003		0.1560	0.1560		0.1436	0.1436		307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.2328</b>	<b>2.3374</b>	<b>2.3027</b>	<b>3.1100e-003</b>		<b>0.1560</b>	<b>0.1560</b>		<b>0.1436</b>	<b>0.1436</b>		<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1007	0.0731	0.6737	2.0200e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		201.2524	201.2524	6.2700e-003		201.4091
<b>Total</b>	<b>0.1007</b>	<b>0.0731</b>	<b>0.6737</b>	<b>2.0200e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>201.2524</b>	<b>201.2524</b>	<b>6.2700e-003</b>		<b>201.4091</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Pipeline Installation - 2019**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	307.5419	307.5419	0.0973		309.9744
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>		<b>0.1215</b>	<b>0.1215</b>		<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>307.5419</b>	<b>307.5419</b>	<b>0.0973</b>		<b>309.9744</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1007	0.0731	0.6737	2.0200e-003	0.2044	1.4000e-003	0.2058	0.0542	1.2900e-003	0.0555		201.2524	201.2524	6.2700e-003		201.4091
<b>Total</b>	<b>0.1007</b>	<b>0.0731</b>	<b>0.6737</b>	<b>2.0200e-003</b>	<b>0.2044</b>	<b>1.4000e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2900e-003</b>	<b>0.0555</b>		<b>201.2524</b>	<b>201.2524</b>	<b>6.2700e-003</b>		<b>201.4091</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Pipeline Installation - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.2095</b>	<b>2.1052</b>	<b>2.2797</b>	<b>3.1100e-003</b>		<b>0.1331</b>	<b>0.1331</b>		<b>0.1225</b>	<b>0.1225</b>		<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.3 Pipeline Installation - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0760	1.7344	2.3421	3.1100e-003		0.1215	0.1215		0.1215	0.1215	0.0000	300.7685	300.7685	0.0973		303.2004
<b>Total</b>	<b>0.0760</b>	<b>1.7344</b>	<b>2.3421</b>	<b>3.1100e-003</b>		<b>0.1215</b>	<b>0.1215</b>		<b>0.1215</b>	<b>0.1215</b>	<b>0.0000</b>	<b>300.7685</b>	<b>300.7685</b>	<b>0.0973</b>		<b>303.2004</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3566</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>		<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.7334</b>	<b>2,207.7334</b>	<b>0.7140</b>		<b>2,225.5841</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0944	0.0660	0.6162	1.9600e-003	0.2044	1.3800e-003	0.2058	0.0542	1.2700e-003	0.0555		194.8944	194.8944	5.6700e-003		195.0360
<b>Total</b>	<b>0.0944</b>	<b>0.0660</b>	<b>0.6162</b>	<b>1.9600e-003</b>	<b>0.2044</b>	<b>1.3800e-003</b>	<b>0.2058</b>	<b>0.0542</b>	<b>1.2700e-003</b>	<b>0.0555</b>		<b>194.8944</b>	<b>194.8944</b>	<b>5.6700e-003</b>		<b>195.0360</b>



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**3.4 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2556</b>	<b>12.9191</b>	<b>14.6532</b>	<b>0.0228</b>		<b>0.6777</b>	<b>0.6777</b>		<b>0.6235</b>	<b>0.6235</b>		<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**3.4 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5609</b>	<b>11.2952</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6093</b>	<b>0.6093</b>		<b>0.6093</b>	<b>0.6093</b>	<b>0.0000</b>	<b>2,207.2109</b>	<b>2,207.2109</b>	<b>0.7139</b>		<b>2,225.0573</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0892	0.0600	0.5759	1.8900e-003	0.2044	1.3600e-003	0.2057	0.0542	1.2500e-003	0.0555		188.3406	188.3406	5.2300e-003		188.4714
<b>Total</b>	<b>0.0892</b>	<b>0.0600</b>	<b>0.5759</b>	<b>1.8900e-003</b>	<b>0.2044</b>	<b>1.3600e-003</b>	<b>0.2057</b>	<b>0.0542</b>	<b>1.2500e-003</b>	<b>0.0555</b>		<b>188.3406</b>	<b>188.3406</b>	<b>5.2300e-003</b>		<b>188.4714</b>

**4.0 Operational Detail - Mobile**

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0900e-003	5.3000e-004	0.0595	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.1179	0.1179	2.5000e-004		0.1241
Unmitigated	9.6700e-003	9.5000e-004	0.1028	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2188	0.2188	5.9000e-004		0.2335

NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.6700e-003	9.5000e-004	0.1028	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2188	0.2188	5.9000e-004		0.2335
<b>Total</b>	<b>9.6700e-003</b>	<b>9.5000e-004</b>	<b>0.1028</b>	<b>1.0000e-005</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>3.7000e-004</b>	<b>3.7000e-004</b>		<b>0.2188</b>	<b>0.2188</b>	<b>5.9000e-004</b>		<b>0.2335</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0900e-003	5.3000e-004	0.0595	0.0000		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		0.1179	0.1179	2.5000e-004		0.1241
<b>Total</b>	<b>4.0900e-003</b>	<b>5.3000e-004</b>	<b>0.0595</b>	<b>0.0000</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>1.6000e-004</b>	<b>1.6000e-004</b>		<b>0.1179</b>	<b>0.1179</b>	<b>2.5000e-004</b>		<b>0.1241</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

## NCPWF-SVR Pipeline-Open Trench - San Diego County APCD Air District, Winter

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Annual

**NCPWF-SVR Pipeline-Trenchless**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	34.47	1000sqft	0.79	34,469.80	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

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Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

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Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	17235	0
tblAreaCoating	Area_Nonresidential_Interior	51705	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00

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tblLandUse	BuildingSpaceSquareFeet	34,470.00	34,469.80
tblLandUse	LandUseSquareFeet	34,470.00	34,469.80
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	42.74	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	7,971,187.50	0.00

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0529	0.5260	0.3274	5.2000e-004	3.4000e-003	0.0303	0.0337	9.0000e-004	0.0279	0.0288	0.0000	47.9170	47.9170	0.0140	0.0000	48.2674
2019	0.5311	5.1519	3.3110	5.8200e-003	0.0377	0.2790	0.3167	0.0100	0.2581	0.2681	0.0000	519.7343	519.7343	0.1453	0.0000	523.3674
2020	0.1404	1.2710	0.7872	1.9600e-003	0.0124	0.0525	0.0649	3.3500e-003	0.0500	0.0534	0.0000	168.0902	168.0902	0.0367	0.0000	169.0085
<b>Maximum</b>	<b>0.5311</b>	<b>5.1519</b>	<b>3.3110</b>	<b>5.8200e-003</b>	<b>0.0377</b>	<b>0.2790</b>	<b>0.3167</b>	<b>0.0100</b>	<b>0.2581</b>	<b>0.2681</b>	<b>0.0000</b>	<b>519.7343</b>	<b>519.7343</b>	<b>0.1453</b>	<b>0.0000</b>	<b>523.3674</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0136	0.2503	0.3421	5.2000e-004	3.4000e-003	0.0136	0.0170	9.0000e-004	0.0136	0.0145	0.0000	47.9170	47.9170	0.0140	0.0000	48.2674
2019	0.1519	2.7835	3.6269	5.8200e-003	0.0377	0.1469	0.1845	0.0100	0.1468	0.1569	0.0000	519.7337	519.7337	0.1453	0.0000	523.3668
2020	0.0524	0.9332	1.0349	1.9600e-003	0.0124	0.0443	0.0567	3.3500e-003	0.0442	0.0476	0.0000	168.0900	168.0900	0.0367	0.0000	169.0084
<b>Maximum</b>	<b>0.1519</b>	<b>2.7835</b>	<b>3.6269</b>	<b>5.8200e-003</b>	<b>0.0377</b>	<b>0.1469</b>	<b>0.1845</b>	<b>0.0100</b>	<b>0.1468</b>	<b>0.1569</b>	<b>0.0000</b>	<b>519.7337</b>	<b>519.7337</b>	<b>0.1453</b>	<b>0.0000</b>	<b>523.3668</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	69.92	42.91	-13.07	0.00	0.00	43.42	37.83	0.00	39.09	37.49	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-3-2018	3-2-2019	1.6948	0.8080
2	3-3-2019	6-2-2019	1.6936	0.8249
3	6-3-2019	9-2-2019	1.6933	0.8245
4	9-3-2019	12-2-2019	0.8841	0.5573
5	12-3-2019	3-2-2020	0.8000	0.5439
6	3-3-2020	6-2-2020	0.7857	0.5486
7	6-3-2020	9-2-2020	0.0854	0.0596
		Highest	1.6948	0.8249

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.2000e-004</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.6000e-004</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0000e-005	0.0000	1.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.3000e-004	3.3000e-004	0.0000	0.0000	3.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.5000e-004</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>66.67</b>	<b>0.00</b>	<b>43.75</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>46.77</b>	<b>46.77</b>	<b>0.00</b>	<b>0.00</b>	<b>46.97</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	12/3/2018	9/6/2019	5	200	
2	Building Construction	Building Construction	9/7/2019	6/12/2020	5	200	



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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	2	8.00	203	0.36
Building Construction	Welders	2	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0512	0.5247	0.3145	4.9000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	44.6726	44.6726	0.0139	0.0000	45.0203
<b>Total</b>	<b>0.0512</b>	<b>0.5247</b>	<b>0.3145</b>	<b>4.9000e-004</b>		<b>0.0303</b>	<b>0.0303</b>		<b>0.0279</b>	<b>0.0279</b>	<b>0.0000</b>	<b>44.6726</b>	<b>44.6726</b>	<b>0.0139</b>	<b>0.0000</b>	<b>45.0203</b>

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**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.3700e-003	0.0128	4.0000e-005	3.4000e-003	2.0000e-005	3.4300e-003	9.0000e-004	2.0000e-005	9.3000e-004	0.0000	3.2445	3.2445	1.1000e-004	0.0000	3.2472
<b>Total</b>	<b>1.6400e-003</b>	<b>1.3700e-003</b>	<b>0.0128</b>	<b>4.0000e-005</b>	<b>3.4000e-003</b>	<b>2.0000e-005</b>	<b>3.4300e-003</b>	<b>9.0000e-004</b>	<b>2.0000e-005</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>3.2445</b>	<b>3.2445</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.2472</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.2489	0.3292	4.9000e-004		0.0136	0.0136		0.0136	0.0136	0.0000	44.6725	44.6725	0.0139	0.0000	45.0202
<b>Total</b>	<b>0.0120</b>	<b>0.2489</b>	<b>0.3292</b>	<b>4.9000e-004</b>		<b>0.0136</b>	<b>0.0136</b>		<b>0.0136</b>	<b>0.0136</b>	<b>0.0000</b>	<b>44.6725</b>	<b>44.6725</b>	<b>0.0139</b>	<b>0.0000</b>	<b>45.0202</b>

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**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.3700e-003	0.0128	4.0000e-005	3.4000e-003	2.0000e-005	3.4300e-003	9.0000e-004	2.0000e-005	9.3000e-004	0.0000	3.2445	3.2445	1.1000e-004	0.0000	3.2472
<b>Total</b>	<b>1.6400e-003</b>	<b>1.3700e-003</b>	<b>0.0128</b>	<b>4.0000e-005</b>	<b>3.4000e-003</b>	<b>2.0000e-005</b>	<b>3.4300e-003</b>	<b>9.0000e-004</b>	<b>2.0000e-005</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>3.2445</b>	<b>3.2445</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.2472</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4109	4.1794	2.6477	4.1600e-003		0.2374	0.2374		0.2184	0.2184	0.0000	374.3797	374.3797	0.1185	0.0000	377.3409
<b>Total</b>	<b>0.4109</b>	<b>4.1794</b>	<b>2.6477</b>	<b>4.1600e-003</b>		<b>0.2374</b>	<b>0.2374</b>		<b>0.2184</b>	<b>0.2184</b>	<b>0.0000</b>	<b>374.3797</b>	<b>374.3797</b>	<b>0.1185</b>	<b>0.0000</b>	<b>377.3409</b>

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**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0129	0.0105	0.0986	3.0000e-004	0.0290	2.0000e-004	0.0292	7.7100e-003	1.9000e-004	7.9000e-003	0.0000	26.8201	26.8201	8.3000e-004	0.0000	26.8410
<b>Total</b>	<b>0.0129</b>	<b>0.0105</b>	<b>0.0986</b>	<b>3.0000e-004</b>	<b>0.0290</b>	<b>2.0000e-004</b>	<b>0.0292</b>	<b>7.7100e-003</b>	<b>1.9000e-004</b>	<b>7.9000e-003</b>	<b>0.0000</b>	<b>26.8201</b>	<b>26.8201</b>	<b>8.3000e-004</b>	<b>0.0000</b>	<b>26.8410</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1021	2.1217	2.8063	4.1600e-003		0.1158	0.1158		0.1158	0.1158	0.0000	374.3792	374.3792	0.1185	0.0000	377.3405
<b>Total</b>	<b>0.1021</b>	<b>2.1217</b>	<b>2.8063</b>	<b>4.1600e-003</b>		<b>0.1158</b>	<b>0.1158</b>		<b>0.1158</b>	<b>0.1158</b>	<b>0.0000</b>	<b>374.3792</b>	<b>374.3792</b>	<b>0.1185</b>	<b>0.0000</b>	<b>377.3405</b>

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**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0129	0.0105	0.0986	3.0000e-004	0.0290	2.0000e-004	0.0292	7.7100e-003	1.9000e-004	7.9000e-003	0.0000	26.8201	26.8201	8.3000e-004	0.0000	26.8410
<b>Total</b>	<b>0.0129</b>	<b>0.0105</b>	<b>0.0986</b>	<b>3.0000e-004</b>	<b>0.0290</b>	<b>2.0000e-004</b>	<b>0.0292</b>	<b>7.7100e-003</b>	<b>1.9000e-004</b>	<b>7.9000e-003</b>	<b>0.0000</b>	<b>26.8201</b>	<b>26.8201</b>	<b>8.3000e-004</b>	<b>0.0000</b>	<b>26.8410</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1032	0.9301	0.5325	1.2300e-003		0.0411	0.0411		0.0392	0.0392	0.0000	105.8860	105.8860	0.0253	0.0000	106.5193
<b>Total</b>	<b>0.1032</b>	<b>0.9301</b>	<b>0.5325</b>	<b>1.2300e-003</b>		<b>0.0411</b>	<b>0.0411</b>		<b>0.0392</b>	<b>0.0392</b>	<b>0.0000</b>	<b>105.8860</b>	<b>105.8860</b>	<b>0.0253</b>	<b>0.0000</b>	<b>106.5193</b>

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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0294	7.9100e-003	6.0000e-005	1.4800e-003	1.9000e-004	1.6700e-003	4.3000e-004	1.9000e-004	6.1000e-004	0.0000	6.0328	6.0328	5.0000e-004	0.0000	6.0453
Worker	3.1800e-003	2.5800e-003	0.0243	7.0000e-005	7.1600e-003	5.0000e-005	7.2100e-003	1.9000e-003	5.0000e-005	1.9500e-003	0.0000	6.6157	6.6157	2.1000e-004	0.0000	6.6209
<b>Total</b>	<b>4.2600e-003</b>	<b>0.0320</b>	<b>0.0322</b>	<b>1.3000e-004</b>	<b>8.6400e-003</b>	<b>2.4000e-004</b>	<b>8.8800e-003</b>	<b>2.3300e-003</b>	<b>2.4000e-004</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>12.6485</b>	<b>12.6485</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>12.6661</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0326	0.6194	0.6898	1.2300e-003		0.0306	0.0306		0.0306	0.0306	0.0000	105.8858	105.8858	0.0253	0.0000	106.5192
<b>Total</b>	<b>0.0326</b>	<b>0.6194</b>	<b>0.6898</b>	<b>1.2300e-003</b>		<b>0.0306</b>	<b>0.0306</b>		<b>0.0306</b>	<b>0.0306</b>	<b>0.0000</b>	<b>105.8858</b>	<b>105.8858</b>	<b>0.0253</b>	<b>0.0000</b>	<b>106.5192</b>

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**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0294	7.9100e-003	6.0000e-005	1.4800e-003	1.9000e-004	1.6700e-003	4.3000e-004	1.9000e-004	6.1000e-004	0.0000	6.0328	6.0328	5.0000e-004	0.0000	6.0453
Worker	3.1800e-003	2.5800e-003	0.0243	7.0000e-005	7.1600e-003	5.0000e-005	7.2100e-003	1.9000e-003	5.0000e-005	1.9500e-003	0.0000	6.6157	6.6157	2.1000e-004	0.0000	6.6209
<b>Total</b>	<b>4.2600e-003</b>	<b>0.0320</b>	<b>0.0322</b>	<b>1.3000e-004</b>	<b>8.6400e-003</b>	<b>2.4000e-004</b>	<b>8.8800e-003</b>	<b>2.3300e-003</b>	<b>2.4000e-004</b>	<b>2.5600e-003</b>	<b>0.0000</b>	<b>12.6485</b>	<b>12.6485</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>12.6661</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1348	1.2291	0.7449	1.7700e-003		0.0522	0.0522		0.0498	0.0498	0.0000	150.2469	150.2469	0.0358	0.0000	151.1415
<b>Total</b>	<b>0.1348</b>	<b>1.2291</b>	<b>0.7449</b>	<b>1.7700e-003</b>		<b>0.0522</b>	<b>0.0522</b>		<b>0.0498</b>	<b>0.0498</b>	<b>0.0000</b>	<b>150.2469</b>	<b>150.2469</b>	<b>0.0358</b>	<b>0.0000</b>	<b>151.1415</b>



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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0386	0.0102	9.0000e-005	2.1300e-003	1.8000e-004	2.3000e-003	6.1000e-004	1.7000e-004	7.9000e-004	0.0000	8.6238	8.6238	6.8000e-004	0.0000	8.6409
Worker	4.2800e-003	3.3500e-003	0.0320	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	7.0000e-005	2.8000e-003	0.0000	9.2194	9.2194	2.7000e-004	0.0000	9.2261
<b>Total</b>	<b>5.5500e-003</b>	<b>0.0419</b>	<b>0.0423</b>	<b>1.9000e-004</b>	<b>0.0124</b>	<b>2.5000e-004</b>	<b>0.0127</b>	<b>3.3500e-003</b>	<b>2.4000e-004</b>	<b>3.5900e-003</b>	<b>0.0000</b>	<b>17.8432</b>	<b>17.8432</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>17.8670</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0469	0.8913	0.9926	1.7700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	150.2467	150.2467	0.0358	0.0000	151.1414
<b>Total</b>	<b>0.0469</b>	<b>0.8913</b>	<b>0.9926</b>	<b>1.7700e-003</b>		<b>0.0440</b>	<b>0.0440</b>		<b>0.0440</b>	<b>0.0440</b>	<b>0.0000</b>	<b>150.2467</b>	<b>150.2467</b>	<b>0.0358</b>	<b>0.0000</b>	<b>151.1414</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2700e-003	0.0386	0.0102	9.0000e-005	2.1300e-003	1.8000e-004	2.3000e-003	6.1000e-004	1.7000e-004	7.9000e-004	0.0000	8.6238	8.6238	6.8000e-004	0.0000	8.6409
Worker	4.2800e-003	3.3500e-003	0.0320	1.0000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	7.0000e-005	2.8000e-003	0.0000	9.2194	9.2194	2.7000e-004	0.0000	9.2261
<b>Total</b>	<b>5.5500e-003</b>	<b>0.0419</b>	<b>0.0423</b>	<b>1.9000e-004</b>	<b>0.0124</b>	<b>2.5000e-004</b>	<b>0.0127</b>	<b>3.3500e-003</b>	<b>2.4000e-004</b>	<b>3.5900e-003</b>	<b>0.0000</b>	<b>17.8432</b>	<b>17.8432</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>17.8670</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-005	0.0000	1.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.3000e-004	3.3000e-004	0.0000	0.0000	3.5000e-004
Unmitigated	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	3.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2000e-004	6.2000e-004	0.0000	0.0000	6.6000e-004
<b>Total</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.2000e-004</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.6000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.3000e-004	3.3000e-004	0.0000	0.0000	3.5000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.8000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.5000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



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**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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**11.0 Vegetation**

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Annual

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NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**NCPWF-SVR Pipeline-Trenchless**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	34.47	1000sqft	0.79	34,469.80	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	17235	0
tblAreaCoating	Area_Nonresidential_Interior	51705	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00

## NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

tblLandUse	BuildingSpaceSquareFeet	34,470.00	34,469.80
tblLandUse	LandUseSquareFeet	34,470.00	34,469.80
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	42.74	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	7,971,187.50	0.00

## 2.0 Emissions Summary

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NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	5.0333	50.0864	31.2626	0.0502	0.3321	2.8879	3.2200	0.0881	2.6569	2.7450	0.0000	5,049.167 3	5,049.167 3	1.4720	0.0000	5,085.966 5
2019	4.7318	46.8025	30.7663	0.0500	0.3321	2.6549	2.9870	0.0881	2.4425	2.5306	0.0000	4,959.498 4	4,959.498 4	1.4697	0.0000	4,996.241 0
2020	2.3771	21.5307	13.3736	0.0333	0.2156	0.8893	1.1048	0.0580	0.8479	0.9059	0.0000	3,151.866 2	3,151.866 2	0.6863	0.0000	3,169.022 5
<b>Maximum</b>	<b>5.0333</b>	<b>50.0864</b>	<b>31.2626</b>	<b>0.0502</b>	<b>0.3321</b>	<b>2.8879</b>	<b>3.2200</b>	<b>0.0881</b>	<b>2.6569</b>	<b>2.7450</b>	<b>0.0000</b>	<b>5,049.167 3</b>	<b>5,049.167 3</b>	<b>1.4720</b>	<b>0.0000</b>	<b>5,085.966 5</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.2944	23.8240	32.6639	0.0502	0.3321	1.2965	1.6286	0.0881	1.2963	1.3843	0.0000	5,049.167 3	5,049.167 3	1.4720	0.0000	5,085.966 4
2019	1.2826	23.8115	32.5383	0.0500	0.3321	1.2964	1.6285	0.0881	1.2963	1.3843	0.0000	4,959.498 4	4,959.498 4	1.4697	0.0000	4,996.241 0
2020	0.8867	15.8050	17.5721	0.0333	0.2156	0.7500	0.9655	0.0580	0.7498	0.8078	0.0000	3,151.866 2	3,151.866 2	0.6863	0.0000	3,169.022 5
<b>Maximum</b>	<b>1.2944</b>	<b>23.8240</b>	<b>32.6639</b>	<b>0.0502</b>	<b>0.3321</b>	<b>1.2965</b>	<b>1.6286</b>	<b>0.0881</b>	<b>1.2963</b>	<b>1.3843</b>	<b>0.0000</b>	<b>5,049.167 3</b>	<b>5,049.167 3</b>	<b>1.4720</b>	<b>0.0000</b>	<b>5,085.966 4</b>

## NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	71.47	46.43	-9.78	0.00	0.00	48.03	42.25	0.00	43.80	42.14	0.00	0.00	0.00	0.00	0.00	0.00

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.3000e-004	3.0000e-005	3.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.5400e-003	7.5400e-003	2.0000e-005		8.0500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.3000e-004</b>	<b>3.0000e-005</b>	<b>3.5400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>7.5400e-003</b>	<b>7.5400e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>8.0500e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.0700e-003	4.0700e-003	1.0000e-005		4.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>4.0700e-003</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.2800e-003</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.58	33.33	42.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.02	46.02	50.00	0.00	46.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	12/3/2018	9/6/2019	5	200	
2	Building Construction	Building Construction	9/7/2019	6/12/2020	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	2	8.00	203	0.36
Building Construction	Welders	2	8.00	46	0.45

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8802	49.9681	29.9542	0.0466		2.8856	2.8856		2.6548	2.6548		4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>4.8802</b>	<b>49.9681</b>	<b>29.9542</b>	<b>0.0466</b>		<b>2.8856</b>	<b>2.8856</b>		<b>2.6548</b>	<b>2.6548</b>		<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.1531</b>	<b>0.1182</b>	<b>1.3084</b>	<b>3.6100e-003</b>	<b>0.3321</b>	<b>2.3000e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1200e-003</b>	<b>0.0902</b>		<b>359.3505</b>	<b>359.3505</b>	<b>0.0120</b>		<b>359.6496</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1531	0.1182	1.3084	3.6100e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		359.3505	359.3505	0.0120		359.6496
<b>Total</b>	<b>0.1531</b>	<b>0.1182</b>	<b>1.3084</b>	<b>3.6100e-003</b>	<b>0.3321</b>	<b>2.3000e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1200e-003</b>	<b>0.0902</b>		<b>359.3505</b>	<b>359.3505</b>	<b>0.0120</b>		<b>359.6496</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5905	46.6967	29.5835	0.0465		2.6526	2.6526		2.4404	2.4404		4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>4.5905</b>	<b>46.6967</b>	<b>29.5835</b>	<b>0.0465</b>		<b>2.6526</b>	<b>2.6526</b>		<b>2.4404</b>	<b>2.4404</b>		<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.1413</b>	<b>0.1058</b>	<b>1.1828</b>	<b>3.5000e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>348.5157</b>	<b>348.5157</b>	<b>0.0108</b>		<b>348.7866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0465		1.2942	1.2942		1.2942	1.2942	0.0000	4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0465</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>



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**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1413	0.1058	1.1828	3.5000e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		348.5157	348.5157	0.0108		348.7866
<b>Total</b>	<b>0.1413</b>	<b>0.1058</b>	<b>1.1828</b>	<b>3.5000e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>348.5157</b>	<b>348.5157</b>	<b>0.0108</b>		<b>348.7866</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5159	22.6861	12.9880	0.0300		1.0035	1.0035		0.9572	0.9572		2,846.8117	2,846.8117	0.6811		2,863.8399
<b>Total</b>	<b>2.5159</b>	<b>22.6861</b>	<b>12.9880</b>	<b>0.0300</b>		<b>1.0035</b>	<b>1.0035</b>		<b>0.9572</b>	<b>0.9572</b>		<b>2,846.8117</b>	<b>2,846.8117</b>	<b>0.6811</b>		<b>2,863.8399</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.7095	0.1826	1.5300e-003	0.0367	4.7100e-003	0.0415	0.0106	4.5100e-003	0.0151		164.0891	164.0891	0.0131		164.4157
Worker	0.0761	0.0570	0.6369	1.8800e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		187.6623	187.6623	5.8400e-003		187.8082
<b>Total</b>	<b>0.1020</b>	<b>0.7665</b>	<b>0.8195</b>	<b>3.4100e-003</b>	<b>0.2156</b>	<b>5.9400e-003</b>	<b>0.2215</b>	<b>0.0580</b>	<b>5.6400e-003</b>	<b>0.0636</b>		<b>351.7514</b>	<b>351.7514</b>	<b>0.0189</b>		<b>352.2239</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7944	15.1062	16.8243	0.0300		0.7458	0.7458		0.7458	0.7458	0.0000	2,846.8117	2,846.8117	0.6811		2,863.8399
<b>Total</b>	<b>0.7944</b>	<b>15.1062</b>	<b>16.8243</b>	<b>0.0300</b>		<b>0.7458</b>	<b>0.7458</b>		<b>0.7458</b>	<b>0.7458</b>	<b>0.0000</b>	<b>2,846.8117</b>	<b>2,846.8117</b>	<b>0.6811</b>		<b>2,863.8399</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0259	0.7095	0.1826	1.5300e-003	0.0367	4.7100e-003	0.0415	0.0106	4.5100e-003	0.0151		164.0891	164.0891	0.0131		164.4157
Worker	0.0761	0.0570	0.6369	1.8800e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		187.6623	187.6623	5.8400e-003		187.8082
<b>Total</b>	<b>0.1020</b>	<b>0.7665</b>	<b>0.8195</b>	<b>3.4100e-003</b>	<b>0.2156</b>	<b>5.9400e-003</b>	<b>0.2215</b>	<b>0.0580</b>	<b>5.6400e-003</b>	<b>0.0636</b>		<b>351.7514</b>	<b>351.7514</b>	<b>0.0189</b>		<b>352.2239</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2848	20.8319	12.6258	0.0300		0.8851	0.8851		0.8439	0.8439		2,807.0995	2,807.0995	0.6686		2,823.8141
<b>Total</b>	<b>2.2848</b>	<b>20.8319</b>	<b>12.6258</b>	<b>0.0300</b>		<b>0.8851</b>	<b>0.8851</b>		<b>0.8439</b>	<b>0.8439</b>		<b>2,807.0995</b>	<b>2,807.0995</b>	<b>0.6686</b>		<b>2,823.8141</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0211	0.6474	0.1640	1.5200e-003	0.0367	3.0100e-003	0.0398	0.0106	2.8800e-003	0.0135		163.0303	163.0303	0.0124		163.3399
Worker	0.0712	0.0514	0.5838	1.8200e-003	0.1788	1.2100e-003	0.1800	0.0474	1.1100e-003	0.0485		181.7364	181.7364	5.2900e-003		181.8686
<b>Total</b>	<b>0.0923</b>	<b>0.6988</b>	<b>0.7478</b>	<b>3.3400e-003</b>	<b>0.2156</b>	<b>4.2200e-003</b>	<b>0.2198</b>	<b>0.0580</b>	<b>3.9900e-003</b>	<b>0.0620</b>		<b>344.7667</b>	<b>344.7667</b>	<b>0.0177</b>		<b>345.2084</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7944	15.1062	16.8243	0.0300		0.7458	0.7458		0.7458	0.7458	0.0000	2,807.0995	2,807.0995	0.6686		2,823.8141
<b>Total</b>	<b>0.7944</b>	<b>15.1062</b>	<b>16.8243</b>	<b>0.0300</b>		<b>0.7458</b>	<b>0.7458</b>		<b>0.7458</b>	<b>0.7458</b>	<b>0.0000</b>	<b>2,807.0995</b>	<b>2,807.0995</b>	<b>0.6686</b>		<b>2,823.8141</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0211	0.6474	0.1640	1.5200e-003	0.0367	3.0100e-003	0.0398	0.0106	2.8800e-003	0.0135		163.0303	163.0303	0.0124		163.3399
Worker	0.0712	0.0514	0.5838	1.8200e-003	0.1788	1.2100e-003	0.1800	0.0474	1.1100e-003	0.0485		181.7364	181.7364	5.2900e-003		181.8686
<b>Total</b>	<b>0.0923</b>	<b>0.6988</b>	<b>0.7478</b>	<b>3.3400e-003</b>	<b>0.2156</b>	<b>4.2200e-003</b>	<b>0.2198</b>	<b>0.0580</b>	<b>3.9900e-003</b>	<b>0.0620</b>		<b>344.7667</b>	<b>344.7667</b>	<b>0.0177</b>		<b>345.2084</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies



NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.0700e-003	4.0700e-003	1.0000e-005		4.2800e-003
Unmitigated	3.3000e-004	3.0000e-005	3.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.5400e-003	7.5400e-003	2.0000e-005		8.0500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.5400e-003	7.5400e-003	2.0000e-005		8.0500e-003
<b>Total</b>	<b>3.3000e-004</b>	<b>3.0000e-005</b>	<b>3.5400e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>7.5400e-003</b>	<b>7.5400e-003</b>	<b>2.0000e-005</b>		<b>8.0500e-003</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.0700e-003	4.0700e-003	1.0000e-005		4.2800e-003
<b>Total</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>2.0500e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>4.0700e-003</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>		<b>4.2800e-003</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Summer

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**NCPWF-SVR Pipeline-Trenchless**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	34.47	1000sqft	0.79	34,469.80	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

## NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

Architectural Coating - No architectural coatings.

Vehicle Trips - No mobile sources during operation.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No coatings used in this project phase.

Landscape Equipment - There is no landscaping for this project.

Energy Use - No energy use for this project.

Water And Wastewater - No water use for this project.

Solid Waste - No solid waste for this project.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings for this project. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	17235	0
tblAreaCoating	Area_Nonresidential_Interior	51705	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	200.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

tblLandUse	BuildingSpaceSquareFeet	34,470.00	34,469.80
tblLandUse	LandUseSquareFeet	34,470.00	34,469.80
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	42.74	0.00
tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	7,971,187.50	0.00

**2.0 Emissions Summary**

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	5.0571	50.1008	31.1702	0.0500	0.3321	2.8879	3.2200	0.0881	2.6569	2.7450	0.0000	5,027.0371	5,027.0371	1.4713	0.0000	5,063.8189
2019	4.7541	46.8154	30.6783	0.0498	0.3321	2.6549	2.9870	0.0881	2.4425	2.5306	0.0000	4,938.0178	4,938.0178	1.4691	0.0000	4,974.7440
2020	2.3895	21.5354	13.3479	0.0331	0.2156	0.8893	1.1049	0.0580	0.8479	0.9059	0.0000	3,136.1157	3,136.1157	0.6867	0.0000	3,153.2841
<b>Maximum</b>	<b>5.0571</b>	<b>50.1008</b>	<b>31.1702</b>	<b>0.0500</b>	<b>0.3321</b>	<b>2.8879</b>	<b>3.2200</b>	<b>0.0881</b>	<b>2.6569</b>	<b>2.7450</b>	<b>0.0000</b>	<b>5,027.0371</b>	<b>5,027.0371</b>	<b>1.4713</b>	<b>0.0000</b>	<b>5,063.8189</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.3182	23.8385	32.5715	0.0500	0.3321	1.2965	1.6286	0.0881	1.2963	1.3843	0.0000	5,027.0371	5,027.0371	1.4713	0.0000	5,063.8188
2019	1.3048	23.8245	32.4503	0.0498	0.3321	1.2964	1.6285	0.0881	1.2963	1.3843	0.0000	4,938.0178	4,938.0178	1.4691	0.0000	4,974.7440
2020	0.8991	15.8097	17.5464	0.0331	0.2156	0.7500	0.9656	0.0580	0.7498	0.8078	0.0000	3,136.1157	3,136.1157	0.6867	0.0000	3,153.2841
<b>Maximum</b>	<b>1.3182</b>	<b>23.8385</b>	<b>32.5715</b>	<b>0.0500</b>	<b>0.3321</b>	<b>1.2965</b>	<b>1.6286</b>	<b>0.0881</b>	<b>1.2963</b>	<b>1.3843</b>	<b>0.0000</b>	<b>5,027.0371</b>	<b>5,027.0371</b>	<b>1.4713</b>	<b>0.0000</b>	<b>5,063.8188</b>



## NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	71.13	46.41	-9.80	0.00	0.00	48.03	42.25	0.00	43.80	42.14	0.00	0.00	0.00	0.00	0.00	0.00

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.3000e-004	3.0000e-005	3.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.5400e-003	7.5400e-003	2.0000e-005		8.0500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.3000e-004</b>	<b>3.0000e-005</b>	<b>3.5400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>7.5400e-003</b>	<b>7.5400e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>8.0500e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.4000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.0700e-003	4.0700e-003	1.0000e-005		4.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>4.0700e-003</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.2800e-003</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	57.58	33.33	42.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.02	46.02	50.00	0.00	46.83

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching	Trenching	12/3/2018	9/6/2019	5	200	
2	Building Construction	Building Construction	9/7/2019	6/12/2020	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching	Excavators	2	8.00	158	0.38
Trenching	Rubber Tired Dozers	2	8.00	247	0.40
Trenching	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Trenching	Trenchers	2	8.00	78	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Rubber Tired Loaders	2	8.00	203	0.36
Building Construction	Welders	2	8.00	46	0.45

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Trenching	10	26.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	14.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Trenching - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.8802	49.9681	29.9542	0.0466		2.8856	2.8856		2.6548	2.6548		4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>4.8802</b>	<b>49.9681</b>	<b>29.9542</b>	<b>0.0466</b>		<b>2.8856</b>	<b>2.8856</b>		<b>2.6548</b>	<b>2.6548</b>		<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.1769</b>	<b>0.1327</b>	<b>1.2160</b>	<b>3.3900e-003</b>	<b>0.3321</b>	<b>2.3000e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1200e-003</b>	<b>0.0902</b>		<b>337.2204</b>	<b>337.2204</b>	<b>0.0113</b>		<b>337.5020</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0466		1.2942	1.2942		1.2942	1.2942	0.0000	4,689.8167	4,689.8167	1.4600		4,726.3168
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0466</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,689.8167</b>	<b>4,689.8167</b>	<b>1.4600</b>		<b>4,726.3168</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Trenching - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1769	0.1327	1.2160	3.3900e-003	0.3321	2.3000e-003	0.3344	0.0881	2.1200e-003	0.0902		337.2204	337.2204	0.0113		337.5020
<b>Total</b>	<b>0.1769</b>	<b>0.1327</b>	<b>1.2160</b>	<b>3.3900e-003</b>	<b>0.3321</b>	<b>2.3000e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1200e-003</b>	<b>0.0902</b>		<b>337.2204</b>	<b>337.2204</b>	<b>0.0113</b>		<b>337.5020</b>

**3.2 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5905	46.6967	29.5835	0.0465		2.6526	2.6526		2.4404	2.4404		4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>4.5905</b>	<b>46.6967</b>	<b>29.5835</b>	<b>0.0465</b>		<b>2.6526</b>	<b>2.6526</b>		<b>2.4404</b>	<b>2.4404</b>		<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.1636</b>	<b>0.1187</b>	<b>1.0948</b>	<b>3.2800e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>327.0352</b>	<b>327.0352</b>	<b>0.0102</b>		<b>327.2897</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1413	23.7057	31.3555	0.0465		1.2942	1.2942		1.2942	1.2942	0.0000	4,610.9827	4,610.9827	1.4589		4,647.4543
<b>Total</b>	<b>1.1413</b>	<b>23.7057</b>	<b>31.3555</b>	<b>0.0465</b>		<b>1.2942</b>	<b>1.2942</b>		<b>1.2942</b>	<b>1.2942</b>	<b>0.0000</b>	<b>4,610.9827</b>	<b>4,610.9827</b>	<b>1.4589</b>		<b>4,647.4543</b>

NCPWF-SVR Pipeline-Trenchless - San Diego County APCD Air District, Winter

**3.2 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1636	0.1187	1.0948	3.2800e-003	0.3321	2.2800e-003	0.3344	0.0881	2.1000e-003	0.0902		327.0352	327.0352	0.0102		327.2897
<b>Total</b>	<b>0.1636</b>	<b>0.1187</b>	<b>1.0948</b>	<b>3.2800e-003</b>	<b>0.3321</b>	<b>2.2800e-003</b>	<b>0.3344</b>	<b>0.0881</b>	<b>2.1000e-003</b>	<b>0.0902</b>		<b>327.0352</b>	<b>327.0352</b>	<b>0.0102</b>		<b>327.2897</b>

**3.3 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5159	22.6861	12.9880	0.0300		1.0035	1.0035		0.9572	0.9572		2,846.8117	2,846.8117	0.6811		2,863.8399
<b>Total</b>	<b>2.5159</b>	<b>22.6861</b>	<b>12.9880</b>	<b>0.0300</b>		<b>1.0035</b>	<b>1.0035</b>		<b>0.9572</b>	<b>0.9572</b>		<b>2,846.8117</b>	<b>2,846.8117</b>	<b>0.6811</b>		<b>2,863.8399</b>



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**3.3 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.7089	0.2035	1.4900e-003	0.0367	4.8000e-003	0.0415	0.0106	4.5900e-003	0.0152		159.5793	159.5793	0.0139		159.9278
Worker	0.0881	0.0639	0.5895	1.7700e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		176.0959	176.0959	5.4800e-003		176.2329
<b>Total</b>	<b>0.1151</b>	<b>0.7728</b>	<b>0.7930</b>	<b>3.2600e-003</b>	<b>0.2156</b>	<b>6.0300e-003</b>	<b>0.2216</b>	<b>0.0580</b>	<b>5.7200e-003</b>	<b>0.0637</b>		<b>335.6751</b>	<b>335.6751</b>	<b>0.0194</b>		<b>336.1607</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7944	15.1062	16.8243	0.0300		0.7458	0.7458		0.7458	0.7458	0.0000	2,846.8117	2,846.8117	0.6811		2,863.8399
<b>Total</b>	<b>0.7944</b>	<b>15.1062</b>	<b>16.8243</b>	<b>0.0300</b>		<b>0.7458</b>	<b>0.7458</b>		<b>0.7458</b>	<b>0.7458</b>	<b>0.0000</b>	<b>2,846.8117</b>	<b>2,846.8117</b>	<b>0.6811</b>		<b>2,863.8399</b>

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**3.3 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0271	0.7089	0.2035	1.4900e-003	0.0367	4.8000e-003	0.0415	0.0106	4.5900e-003	0.0152		159.5793	159.5793	0.0139		159.9278
Worker	0.0881	0.0639	0.5895	1.7700e-003	0.1788	1.2300e-003	0.1801	0.0474	1.1300e-003	0.0486		176.0959	176.0959	5.4800e-003		176.2329
<b>Total</b>	<b>0.1151</b>	<b>0.7728</b>	<b>0.7930</b>	<b>3.2600e-003</b>	<b>0.2156</b>	<b>6.0300e-003</b>	<b>0.2216</b>	<b>0.0580</b>	<b>5.7200e-003</b>	<b>0.0637</b>		<b>335.6751</b>	<b>335.6751</b>	<b>0.0194</b>		<b>336.1607</b>

**3.3 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2848	20.8319	12.6258	0.0300		0.8851	0.8851		0.8439	0.8439		2,807.0995	2,807.0995	0.6686		2,823.8141
<b>Total</b>	<b>2.2848</b>	<b>20.8319</b>	<b>12.6258</b>	<b>0.0300</b>		<b>0.8851</b>	<b>0.8851</b>		<b>0.8439</b>	<b>0.8439</b>		<b>2,807.0995</b>	<b>2,807.0995</b>	<b>0.6686</b>		<b>2,823.8141</b>

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**3.3 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0221	0.6458	0.1830	1.4800e-003	0.0367	3.0800e-003	0.0398	0.0106	2.9400e-003	0.0135		158.4836	158.4836	0.0132		158.8136
Worker	0.0826	0.0577	0.5392	1.7100e-003	0.1788	1.2100e-003	0.1800	0.0474	1.1100e-003	0.0485		170.5326	170.5326	4.9600e-003		170.6565
<b>Total</b>	<b>0.1047</b>	<b>0.7035</b>	<b>0.7221</b>	<b>3.1900e-003</b>	<b>0.2156</b>	<b>4.2900e-003</b>	<b>0.2198</b>	<b>0.0580</b>	<b>4.0500e-003</b>	<b>0.0621</b>		<b>329.0162</b>	<b>329.0162</b>	<b>0.0182</b>		<b>329.4701</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7944	15.1062	16.8243	0.0300		0.7458	0.7458		0.7458	0.7458	0.0000	2,807.0995	2,807.0995	0.6686		2,823.8141
<b>Total</b>	<b>0.7944</b>	<b>15.1062</b>	<b>16.8243</b>	<b>0.0300</b>		<b>0.7458</b>	<b>0.7458</b>		<b>0.7458</b>	<b>0.7458</b>	<b>0.0000</b>	<b>2,807.0995</b>	<b>2,807.0995</b>	<b>0.6686</b>		<b>2,823.8141</b>

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**3.3 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0221	0.6458	0.1830	1.4800e-003	0.0367	3.0800e-003	0.0398	0.0106	2.9400e-003	0.0135		158.4836	158.4836	0.0132		158.8136
Worker	0.0826	0.0577	0.5392	1.7100e-003	0.1788	1.2100e-003	0.1800	0.0474	1.1100e-003	0.0485		170.5326	170.5326	4.9600e-003		170.6565
<b>Total</b>	<b>0.1047</b>	<b>0.7035</b>	<b>0.7221</b>	<b>3.1900e-003</b>	<b>0.2156</b>	<b>4.2900e-003</b>	<b>0.2198</b>	<b>0.0580</b>	<b>4.0500e-003</b>	<b>0.0621</b>		<b>329.0162</b>	<b>329.0162</b>	<b>0.0182</b>		<b>329.4701</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

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**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- No Hearths Installed
- Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.0700e-003	4.0700e-003	1.0000e-005		4.2800e-003
Unmitigated	3.3000e-004	3.0000e-005	3.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.5400e-003	7.5400e-003	2.0000e-005		8.0500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.3000e-004	3.0000e-005	3.5400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		7.5400e-003	7.5400e-003	2.0000e-005		8.0500e-003
<b>Total</b>	<b>3.3000e-004</b>	<b>3.0000e-005</b>	<b>3.5400e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>7.5400e-003</b>	<b>7.5400e-003</b>	<b>2.0000e-005</b>		<b>8.0500e-003</b>



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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	2.0000e-005	2.0500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.0700e-003	4.0700e-003	1.0000e-005		4.2800e-003
<b>Total</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>2.0500e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>4.0700e-003</b>	<b>4.0700e-003</b>	<b>1.0000e-005</b>		<b>4.2800e-003</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**NCWRP Expansion**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	241.03	1000sqft	5.53	241,034.00	49

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

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Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Grading - See Section 7.1.2 for Construction Details.

Demolition - No demolition of structures.

Trips and VMT - See Section 7.1.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - Based on the traffic information study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment must be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	230.00	428.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	5/14/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	2/26/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	9/24/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	9/25/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	2/27/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	75.00	0.00
tblGrading	MaterialExported	0.00	1,644.00
tblLandUse	Population	0.00	49.00

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tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	298.88	8.83

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tblTripsAndVMT	HaulingTripNumber	206.00	1,009.00
tblTripsAndVMT	WorkerTripNumber	101.00	102.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	28.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.35
tblVehicleTrips	SU_TR	0.68	0.10
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	55,738,187.50	312,000.00

## 2.0 Emissions Summary

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1250	1.2664	0.7532	1.3300e-003	4.2300e-003	0.0640	0.0682	1.1300e-003	0.0596	0.0607	0.0000	119.9844	119.9844	0.0321	0.0000	120.7863
2019	0.4234	4.2925	2.8428	5.8400e-003	0.5106	0.2038	0.7144	0.2642	0.1899	0.4541	0.0000	523.5068	523.5068	0.1204	0.0000	526.5171
2020	0.3724	3.2921	2.8030	6.4000e-003	0.1419	0.1541	0.2960	0.0385	0.1472	0.1857	0.0000	568.2134	568.2134	0.0763	0.0000	570.1206
2021	1.3322	1.9430	1.8239	3.8600e-003	0.0675	0.0898	0.1572	0.0182	0.0849	0.1031	0.0000	340.8575	340.8575	0.0615	0.0000	342.3938
<b>Maximum</b>	<b>1.3322</b>	<b>4.2925</b>	<b>2.8428</b>	<b>6.4000e-003</b>	<b>0.5106</b>	<b>0.2038</b>	<b>0.7144</b>	<b>0.2642</b>	<b>0.1899</b>	<b>0.4541</b>	<b>0.0000</b>	<b>568.2134</b>	<b>568.2134</b>	<b>0.1204</b>	<b>0.0000</b>	<b>570.1206</b>

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**2.1 Overall Construction**

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0486	0.7467	0.8288	1.3300e-003	4.2300e-003	0.0361	0.0403	1.1300e-003	0.0352	0.0364	0.0000	119.9843	119.9843	0.0321	0.0000	120.7862
2019	0.2441	3.2311	2.9549	5.8400e-003	0.2621	0.1500	0.4121	0.1277	0.1439	0.2716	0.0000	523.5063	523.5063	0.1204	0.0000	526.5166
2020	0.2506	2.8336	2.8922	6.4000e-003	0.1419	0.1389	0.2808	0.0385	0.1346	0.1731	0.0000	568.2130	568.2130	0.0763	0.0000	570.1203
2021	1.2504	1.6290	1.9528	3.8600e-003	0.0675	0.0802	0.1476	0.0182	0.0780	0.0962	0.0000	340.8572	340.8572	0.0615	0.0000	342.3935
<b>Maximum</b>	<b>1.2504</b>	<b>3.2311</b>	<b>2.9549</b>	<b>6.4000e-003</b>	<b>0.2621</b>	<b>0.1500</b>	<b>0.4121</b>	<b>0.1277</b>	<b>0.1439</b>	<b>0.2716</b>	<b>0.0000</b>	<b>568.2130</b>	<b>568.2130</b>	<b>0.1204</b>	<b>0.0000</b>	<b>570.1203</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>20.39</b>	<b>21.81</b>	<b>-4.93</b>	<b>0.00</b>	<b>34.31</b>	<b>20.82</b>	<b>28.73</b>	<b>42.40</b>	<b>18.63</b>	<b>28.16</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2018	12-31-2018	1.3857	0.7921
2	1-1-2019	3-31-2019	1.2477	0.8166
3	4-1-2019	6-30-2019	1.2268	0.9125
4	7-1-2019	9-30-2019	1.2249	0.9159
5	10-1-2019	12-31-2019	1.0080	0.8239
6	1-1-2020	3-31-2020	0.9093	0.7653
7	4-1-2020	6-30-2020	0.9065	0.7626
8	7-1-2020	9-30-2020	0.9165	0.7710

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9	10-1-2020	12-31-2020	0.9192	0.7737
10	1-1-2021	3-31-2021	0.8173	0.7103
11	4-1-2021	6-30-2021	0.3985	0.3461
12	7-1-2021	9-30-2021	1.1520	1.0196
		Highest	1.3857	1.0196

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636
Waste						0.0000	0.0000		0.0000	0.0000	1.7924	0.0000	1.7924	0.1059	0.0000	4.4406
Water						0.0000	0.0000		0.0000	0.0000	0.0990	1.3277	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>	<b>1.0663</b>	<b>0.0632</b>	<b>0.1807</b>	<b>6.2000e-004</b>	<b>0.0524</b>	<b>6.2000e-004</b>	<b>0.0530</b>	<b>0.0140</b>	<b>5.9000e-004</b>	<b>0.0146</b>	<b>1.8914</b>	<b>58.2219</b>	<b>60.1133</b>	<b>0.1191</b>	<b>2.5000e-004</b>	<b>63.1658</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636
Waste						0.0000	0.0000		0.0000	0.0000	1.7924	0.0000	1.7924	0.1059	0.0000	4.4406
Water						0.0000	0.0000		0.0000	0.0000	0.0990	1.3277	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>	<b>1.0663</b>	<b>0.0632</b>	<b>0.1807</b>	<b>6.2000e-004</b>	<b>0.0524</b>	<b>6.2000e-004</b>	<b>0.0530</b>	<b>0.0140</b>	<b>5.9000e-004</b>	<b>0.0146</b>	<b>1.8914</b>	<b>58.2219</b>	<b>60.1133</b>	<b>0.1191</b>	<b>2.5000e-004</b>	<b>63.1658</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	2/26/2019	5	107	
2	Grading	Grading	2/27/2019	9/24/2019	5	150	
3	Building Construction	Building Construction	9/25/2019	5/14/2021	5	428	
4	Architectural Coating	Architectural Coating	7/9/2021	12/6/2021	5	107	
5	Paving	Paving	7/9/2021	12/6/2021	5	107	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 361,551; Non-Residential Outdoor: 120,517; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Architectural Coating	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
	Concrete/Industrial Saws	1	8.00	81	0.73
	Dumpers/Tenders	1	8.00	16	0.38
Paving	Paving Equipment	2	8.00	132	0.36
	Excavators	1	8.00	158	0.38
	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	102.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	16.00	0.00	1,009.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1227	1.2646	0.7360	1.2800e-003		0.0640	0.0640		0.0596	0.0596	0.0000	115.9095	115.9095	0.0319	0.0000	116.7078
<b>Total</b>	<b>0.1227</b>	<b>1.2646</b>	<b>0.7360</b>	<b>1.2800e-003</b>		<b>0.0640</b>	<b>0.0640</b>		<b>0.0596</b>	<b>0.0596</b>	<b>0.0000</b>	<b>115.9095</b>	<b>115.9095</b>	<b>0.0319</b>	<b>0.0000</b>	<b>116.7078</b>

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**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	1.7900e-003	0.0171	5.0000e-005	4.2300e-003	3.0000e-005	4.2700e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	4.0750	4.0750	1.4000e-004	0.0000	4.0785
<b>Total</b>	<b>2.2600e-003</b>	<b>1.7900e-003</b>	<b>0.0171</b>	<b>5.0000e-005</b>	<b>4.2300e-003</b>	<b>3.0000e-005</b>	<b>4.2700e-003</b>	<b>1.1300e-003</b>	<b>3.0000e-005</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>4.0750</b>	<b>4.0750</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.0785</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0463	0.7449	0.8117	1.2800e-003		0.0360	0.0360		0.0352	0.0352	0.0000	115.9093	115.9093	0.0319	0.0000	116.7077
<b>Total</b>	<b>0.0463</b>	<b>0.7449</b>	<b>0.8117</b>	<b>1.2800e-003</b>		<b>0.0360</b>	<b>0.0360</b>		<b>0.0352</b>	<b>0.0352</b>	<b>0.0000</b>	<b>115.9093</b>	<b>115.9093</b>	<b>0.0319</b>	<b>0.0000</b>	<b>116.7077</b>



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**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2600e-003	1.7900e-003	0.0171	5.0000e-005	4.2300e-003	3.0000e-005	4.2700e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	4.0750	4.0750	1.4000e-004	0.0000	4.0785
<b>Total</b>	<b>2.2600e-003</b>	<b>1.7900e-003</b>	<b>0.0171</b>	<b>5.0000e-005</b>	<b>4.2300e-003</b>	<b>3.0000e-005</b>	<b>4.2700e-003</b>	<b>1.1300e-003</b>	<b>3.0000e-005</b>	<b>1.1500e-003</b>	<b>0.0000</b>	<b>4.0750</b>	<b>4.0750</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>4.0785</b>

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0720	0.7336	0.4522	8.0000e-004		0.0368	0.0368		0.0342	0.0342	0.0000	70.9840	70.9840	0.0198	0.0000	71.4777
<b>Total</b>	<b>0.0720</b>	<b>0.7336</b>	<b>0.4522</b>	<b>8.0000e-004</b>		<b>0.0368</b>	<b>0.0368</b>		<b>0.0342</b>	<b>0.0342</b>	<b>0.0000</b>	<b>70.9840</b>	<b>70.9840</b>	<b>0.0198</b>	<b>0.0000</b>	<b>71.4777</b>

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**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	9.9000e-004	9.6000e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4551	2.4551	8.0000e-005	0.0000	2.4570
<b>Total</b>	<b>1.2900e-003</b>	<b>9.9000e-004</b>	<b>9.6000e-003</b>	<b>3.0000e-005</b>	<b>2.6300e-003</b>	<b>2.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>2.0000e-005</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>2.4551</b>	<b>2.4551</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.4570</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0284	0.4577	0.5033	8.0000e-004		0.0222	0.0222		0.0217	0.0217	0.0000	70.9839	70.9839	0.0198	0.0000	71.4776
<b>Total</b>	<b>0.0284</b>	<b>0.4577</b>	<b>0.5033</b>	<b>8.0000e-004</b>		<b>0.0222</b>	<b>0.0222</b>		<b>0.0217</b>	<b>0.0217</b>	<b>0.0000</b>	<b>70.9839</b>	<b>70.9839</b>	<b>0.0198</b>	<b>0.0000</b>	<b>71.4776</b>

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**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2900e-003	9.9000e-004	9.6000e-003	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.4551	2.4551	8.0000e-005	0.0000	2.4570
<b>Total</b>	<b>1.2900e-003</b>	<b>9.9000e-004</b>	<b>9.6000e-003</b>	<b>3.0000e-005</b>	<b>2.6300e-003</b>	<b>2.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>2.0000e-005</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>2.4551</b>	<b>2.4551</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.4570</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4518	0.0000	0.4518	0.2483	0.0000	0.2483	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2303	2.4368	1.5384	2.8000e-003		0.1188	0.1188		0.1096	0.1096	0.0000	247.9256	247.9256	0.0757	0.0000	249.8184
<b>Total</b>	<b>0.2303</b>	<b>2.4368</b>	<b>1.5384</b>	<b>2.8000e-003</b>	<b>0.4518</b>	<b>0.1188</b>	<b>0.5705</b>	<b>0.2483</b>	<b>0.1096</b>	<b>0.3579</b>	<b>0.0000</b>	<b>247.9256</b>	<b>247.9256</b>	<b>0.0757</b>	<b>0.0000</b>	<b>249.8184</b>

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**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.1546	0.0337	4.0000e-004	8.6300e-003	5.8000e-004	9.2100e-003	2.3700e-003	5.5000e-004	2.9200e-003	0.0000	39.3305	39.3305	3.5600e-003	0.0000	39.4196
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7300e-003	3.6300e-003	0.0351	1.0000e-004	9.6200e-003	7.0000e-005	9.6900e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.9820	8.9820	2.9000e-004	0.0000	8.9892
<b>Total</b>	<b>9.1600e-003</b>	<b>0.1582</b>	<b>0.0688</b>	<b>5.0000e-004</b>	<b>0.0183</b>	<b>6.5000e-004</b>	<b>0.0189</b>	<b>4.9300e-003</b>	<b>6.1000e-004</b>	<b>5.5400e-003</b>	<b>0.0000</b>	<b>48.3125</b>	<b>48.3125</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>48.4088</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2033	0.0000	0.2033	0.1117	0.0000	0.1117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1323	1.8096	1.5840	2.8000e-003		0.0866	0.0866		0.0823	0.0823	0.0000	247.9253	247.9253	0.0757	0.0000	249.8181
<b>Total</b>	<b>0.1323</b>	<b>1.8096</b>	<b>1.5840</b>	<b>2.8000e-003</b>	<b>0.2033</b>	<b>0.0866</b>	<b>0.2899</b>	<b>0.1117</b>	<b>0.0823</b>	<b>0.1940</b>	<b>0.0000</b>	<b>247.9253</b>	<b>247.9253</b>	<b>0.0757</b>	<b>0.0000</b>	<b>249.8181</b>

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**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4300e-003	0.1546	0.0337	4.0000e-004	8.6300e-003	5.8000e-004	9.2100e-003	2.3700e-003	5.5000e-004	2.9200e-003	0.0000	39.3305	39.3305	3.5600e-003	0.0000	39.4196
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7300e-003	3.6300e-003	0.0351	1.0000e-004	9.6200e-003	7.0000e-005	9.6900e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.9820	8.9820	2.9000e-004	0.0000	8.9892
<b>Total</b>	<b>9.1600e-003</b>	<b>0.1582</b>	<b>0.0688</b>	<b>5.0000e-004</b>	<b>0.0183</b>	<b>6.5000e-004</b>	<b>0.0189</b>	<b>4.9300e-003</b>	<b>6.1000e-004</b>	<b>5.5400e-003</b>	<b>0.0000</b>	<b>48.3125</b>	<b>48.3125</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>48.4088</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7765	0.6221	1.0400e-003		0.0461	0.0461		0.0441	0.0441	0.0000	89.9134	89.9134	0.0172	0.0000	90.3430
<b>Total</b>	<b>0.0900</b>	<b>0.7765</b>	<b>0.6221</b>	<b>1.0400e-003</b>		<b>0.0461</b>	<b>0.0461</b>		<b>0.0441</b>	<b>0.0441</b>	<b>0.0000</b>	<b>89.9134</b>	<b>89.9134</b>	<b>0.0172</b>	<b>0.0000</b>	<b>90.3430</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5600e-003	0.1757	0.0472	3.8000e-004	9.2900e-003	1.2200e-003	0.0105	2.6800e-003	1.1600e-003	3.8500e-003	0.0000	37.1949	37.1949	2.9900e-003	0.0000	37.2695
Worker	0.0141	0.0108	0.1045	3.0000e-004	0.0286	2.1000e-004	0.0288	7.6100e-003	1.9000e-004	7.8000e-003	0.0000	26.7213	26.7213	8.6000e-004	0.0000	26.7428
<b>Total</b>	<b>0.0206</b>	<b>0.1865</b>	<b>0.1517</b>	<b>6.8000e-004</b>	<b>0.0379</b>	<b>1.4300e-003</b>	<b>0.0394</b>	<b>0.0103</b>	<b>1.3500e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>63.9162</b>	<b>63.9162</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>64.0124</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0523	0.6180	0.6375	1.0400e-003		0.0392	0.0392		0.0380	0.0380	0.0000	89.9133	89.9133	0.0172	0.0000	90.3429
<b>Total</b>	<b>0.0523</b>	<b>0.6180</b>	<b>0.6375</b>	<b>1.0400e-003</b>		<b>0.0392</b>	<b>0.0392</b>		<b>0.0380</b>	<b>0.0380</b>	<b>0.0000</b>	<b>89.9133</b>	<b>89.9133</b>	<b>0.0172</b>	<b>0.0000</b>	<b>90.3429</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5600e-003	0.1757	0.0472	3.8000e-004	9.2900e-003	1.2200e-003	0.0105	2.6800e-003	1.1600e-003	3.8500e-003	0.0000	37.1949	37.1949	2.9900e-003	0.0000	37.2695
Worker	0.0141	0.0108	0.1045	3.0000e-004	0.0286	2.1000e-004	0.0288	7.6100e-003	1.9000e-004	7.8000e-003	0.0000	26.7213	26.7213	8.6000e-004	0.0000	26.7428
<b>Total</b>	<b>0.0206</b>	<b>0.1865</b>	<b>0.1517</b>	<b>6.8000e-004</b>	<b>0.0379</b>	<b>1.4300e-003</b>	<b>0.0394</b>	<b>0.0103</b>	<b>1.3500e-003</b>	<b>0.0117</b>	<b>0.0000</b>	<b>63.9162</b>	<b>63.9162</b>	<b>3.8500e-003</b>	<b>0.0000</b>	<b>64.0124</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3032	2.6583	2.2868	3.9100e-003		0.1504	0.1504		0.1437	0.1437	0.0000	333.0921	333.0921	0.0628	0.0000	334.6617
<b>Total</b>	<b>0.3032</b>	<b>2.6583</b>	<b>2.2868</b>	<b>3.9100e-003</b>		<b>0.1504</b>	<b>0.1504</b>		<b>0.1437</b>	<b>0.1437</b>	<b>0.0000</b>	<b>333.0921</b>	<b>333.0921</b>	<b>0.0628</b>	<b>0.0000</b>	<b>334.6617</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.5973	0.1587	1.4200e-003	0.0348	2.9100e-003	0.0377	0.0100	2.7900e-003	0.0128	0.0000	138.2634	138.2634	0.0106	0.0000	138.5283
Worker	0.0493	0.0365	0.3576	1.0700e-003	0.1072	7.7000e-004	0.1079	0.0285	7.1000e-004	0.0292	0.0000	96.8579	96.8579	2.9100e-003	0.0000	96.9306
<b>Total</b>	<b>0.0692</b>	<b>0.6338</b>	<b>0.5162</b>	<b>2.4900e-003</b>	<b>0.1419</b>	<b>3.6800e-003</b>	<b>0.1456</b>	<b>0.0385</b>	<b>3.5000e-003</b>	<b>0.0420</b>	<b>0.0000</b>	<b>235.1213</b>	<b>235.1213</b>	<b>0.0135</b>	<b>0.0000</b>	<b>235.4589</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1814	2.1999	2.3760	3.9100e-003		0.1352	0.1352		0.1311	0.1311	0.0000	333.0917	333.0917	0.0628	0.0000	334.6613
<b>Total</b>	<b>0.1814</b>	<b>2.1999</b>	<b>2.3760</b>	<b>3.9100e-003</b>		<b>0.1352</b>	<b>0.1352</b>		<b>0.1311</b>	<b>0.1311</b>	<b>0.0000</b>	<b>333.0917</b>	<b>333.0917</b>	<b>0.0628</b>	<b>0.0000</b>	<b>334.6613</b>



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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0200	0.5973	0.1587	1.4200e-003	0.0348	2.9100e-003	0.0377	0.0100	2.7900e-003	0.0128	0.0000	138.2634	138.2634	0.0106	0.0000	138.5283
Worker	0.0493	0.0365	0.3576	1.0700e-003	0.1072	7.7000e-004	0.1079	0.0285	7.1000e-004	0.0292	0.0000	96.8579	96.8579	2.9100e-003	0.0000	96.9306
<b>Total</b>	<b>0.0692</b>	<b>0.6338</b>	<b>0.5162</b>	<b>2.4900e-003</b>	<b>0.1419</b>	<b>3.6800e-003</b>	<b>0.1456</b>	<b>0.0385</b>	<b>3.5000e-003</b>	<b>0.0420</b>	<b>0.0000</b>	<b>235.1213</b>	<b>235.1213</b>	<b>0.0135</b>	<b>0.0000</b>	<b>235.4589</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	0.8878	0.8245	1.4300e-003		0.0476	0.0476		0.0455	0.0455	0.0000	122.0526	122.0526	0.0226	0.0000	122.6166
<b>Total</b>	<b>0.1000</b>	<b>0.8878</b>	<b>0.8245</b>	<b>1.4300e-003</b>		<b>0.0476</b>	<b>0.0476</b>		<b>0.0455</b>	<b>0.0455</b>	<b>0.0000</b>	<b>122.0526</b>	<b>122.0526</b>	<b>0.0226</b>	<b>0.0000</b>	<b>122.6166</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9400e-003	0.1973	0.0526	5.1000e-004	0.0127	4.2000e-004	0.0132	3.6800e-003	4.0000e-004	4.0800e-003	0.0000	50.1965	50.1965	3.7300e-003	0.0000	50.2896
Worker	0.0170	0.0121	0.1223	3.8000e-004	0.0393	2.8000e-004	0.0395	0.0104	2.6000e-004	0.0107	0.0000	34.2976	34.2976	9.8000e-004	0.0000	34.3222
<b>Total</b>	<b>0.0230</b>	<b>0.2095</b>	<b>0.1749</b>	<b>8.9000e-004</b>	<b>0.0520</b>	<b>7.0000e-004</b>	<b>0.0527</b>	<b>0.0141</b>	<b>6.6000e-004</b>	<b>0.0148</b>	<b>0.0000</b>	<b>84.4941</b>	<b>84.4941</b>	<b>4.7100e-003</b>	<b>0.0000</b>	<b>84.6118</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0616	0.7665	0.8671	1.4300e-003		0.0455	0.0455		0.0443	0.0443	0.0000	122.0524	122.0524	0.0226	0.0000	122.6165
<b>Total</b>	<b>0.0616</b>	<b>0.7665</b>	<b>0.8671</b>	<b>1.4300e-003</b>		<b>0.0455</b>	<b>0.0455</b>		<b>0.0443</b>	<b>0.0443</b>	<b>0.0000</b>	<b>122.0524</b>	<b>122.0524</b>	<b>0.0226</b>	<b>0.0000</b>	<b>122.6165</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.9400e-003	0.1973	0.0526	5.1000e-004	0.0127	4.2000e-004	0.0132	3.6800e-003	4.0000e-004	4.0800e-003	0.0000	50.1965	50.1965	3.7300e-003	0.0000	50.2896
Worker	0.0170	0.0121	0.1223	3.8000e-004	0.0393	2.8000e-004	0.0395	0.0104	2.6000e-004	0.0107	0.0000	34.2976	34.2976	9.8000e-004	0.0000	34.3222
<b>Total</b>	<b>0.0230</b>	<b>0.2095</b>	<b>0.1749</b>	<b>8.9000e-004</b>	<b>0.0520</b>	<b>7.0000e-004</b>	<b>0.0527</b>	<b>0.0141</b>	<b>6.6000e-004</b>	<b>0.0148</b>	<b>0.0000</b>	<b>84.4941</b>	<b>84.4941</b>	<b>4.7100e-003</b>	<b>0.0000</b>	<b>84.6118</b>

**3.5 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1172					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0376	0.3667	0.2350	5.2000e-004		0.0172	0.0172		0.0163	0.0163	0.0000	45.1536	45.1536	9.9600e-003	0.0000	45.4027
<b>Total</b>	<b>1.1548</b>	<b>0.3667</b>	<b>0.2350</b>	<b>5.2000e-004</b>		<b>0.0172</b>	<b>0.0172</b>		<b>0.0163</b>	<b>0.0163</b>	<b>0.0000</b>	<b>45.1536</b>	<b>45.1536</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>45.4027</b>

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**3.5 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7200e-003	2.6500e-003	0.0267	8.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.4956	7.4956	2.1000e-004	0.0000	7.5010
<b>Total</b>	<b>3.7200e-003</b>	<b>2.6500e-003</b>	<b>0.0267</b>	<b>8.0000e-005</b>	<b>8.5800e-003</b>	<b>6.0000e-005</b>	<b>8.6400e-003</b>	<b>2.2800e-003</b>	<b>6.0000e-005</b>	<b>2.3400e-003</b>	<b>0.0000</b>	<b>7.4956</b>	<b>7.4956</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>7.5010</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.1172					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.2425	0.2940	5.2000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	45.1535	45.1535	9.9600e-003	0.0000	45.4026
<b>Total</b>	<b>1.1290</b>	<b>0.2425</b>	<b>0.2940</b>	<b>5.2000e-004</b>		<b>0.0123</b>	<b>0.0123</b>		<b>0.0123</b>	<b>0.0123</b>	<b>0.0000</b>	<b>45.1535</b>	<b>45.1535</b>	<b>9.9600e-003</b>	<b>0.0000</b>	<b>45.4026</b>

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**3.5 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7200e-003	2.6500e-003	0.0267	8.0000e-005	8.5800e-003	6.0000e-005	8.6400e-003	2.2800e-003	6.0000e-005	2.3400e-003	0.0000	7.4956	7.4956	2.1000e-004	0.0000	7.5010
<b>Total</b>	<b>3.7200e-003</b>	<b>2.6500e-003</b>	<b>0.0267</b>	<b>8.0000e-005</b>	<b>8.5800e-003</b>	<b>6.0000e-005</b>	<b>8.6400e-003</b>	<b>2.2800e-003</b>	<b>6.0000e-005</b>	<b>2.3400e-003</b>	<b>0.0000</b>	<b>7.4956</b>	<b>7.4956</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>7.5010</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0478	0.4743	0.5414	8.7000e-004		0.0242	0.0242		0.0223	0.0223	0.0000	75.6652	75.6652	0.0238	0.0000	76.2610
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0478</b>	<b>0.4743</b>	<b>0.5414</b>	<b>8.7000e-004</b>		<b>0.0242</b>	<b>0.0242</b>		<b>0.0223</b>	<b>0.0223</b>	<b>0.0000</b>	<b>75.6652</b>	<b>75.6652</b>	<b>0.0238</b>	<b>0.0000</b>	<b>76.2610</b>

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**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9800e-003	2.1200e-003	0.0214	7.0000e-005	6.8600e-003	5.0000e-005	6.9100e-003	1.8200e-003	4.0000e-005	1.8700e-003	0.0000	5.9965	5.9965	1.7000e-004	0.0000	6.0008
<b>Total</b>	<b>2.9800e-003</b>	<b>2.1200e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8600e-003</b>	<b>5.0000e-005</b>	<b>6.9100e-003</b>	<b>1.8200e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>5.9965</b>	<b>5.9965</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>6.0008</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0302	0.4057	0.5687	8.7000e-004		0.0215	0.0215		0.0207	0.0207	0.0000	75.6651	75.6651	0.0238	0.0000	76.2609
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0302</b>	<b>0.4057</b>	<b>0.5687</b>	<b>8.7000e-004</b>		<b>0.0215</b>	<b>0.0215</b>		<b>0.0207</b>	<b>0.0207</b>	<b>0.0000</b>	<b>75.6651</b>	<b>75.6651</b>	<b>0.0238</b>	<b>0.0000</b>	<b>76.2609</b>

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**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9800e-003	2.1200e-003	0.0214	7.0000e-005	6.8600e-003	5.0000e-005	6.9100e-003	1.8200e-003	4.0000e-005	1.8700e-003	0.0000	5.9965	5.9965	1.7000e-004	0.0000	6.0008
<b>Total</b>	<b>2.9800e-003</b>	<b>2.1200e-003</b>	<b>0.0214</b>	<b>7.0000e-005</b>	<b>6.8600e-003</b>	<b>5.0000e-005</b>	<b>6.9100e-003</b>	<b>1.8200e-003</b>	<b>4.0000e-005</b>	<b>1.8700e-003</b>	<b>0.0000</b>	<b>5.9965</b>	<b>5.9965</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>6.0008</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636
Unmitigated	0.0131	0.0632	0.1785	6.2000e-004	0.0524	6.1000e-004	0.0530	0.0140	5.8000e-004	0.0146	0.0000	56.8899	56.8899	2.9500e-003	0.0000	56.9636

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	24.10	83.84	24.10	138,996	138,996
Total	24.10	83.84	24.10	138,996	138,996

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N





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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	kBTU/yr	tons/yr										MT/yr						
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
Unmitigated	1.0533	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
<b>Total</b>	<b>1.0533</b>	<b>2.0000e-005</b>	<b>2.2300e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.3100e-003</b>	<b>4.3100e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-003</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1117					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.3100e-003	4.3100e-003	1.0000e-005	0.0000	4.6000e-003
<b>Total</b>	<b>1.0533</b>	<b>2.0000e-005</b>	<b>2.2300e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.3100e-003</b>	<b>4.3100e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.6000e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

NCWRP Expansion - San Diego County APCD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.4267	0.0102	2.5000e-004	1.7570
Unmitigated	1.4267	0.0102	2.5000e-004	1.7570

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.312 / 0	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>		<b>1.4267</b>	<b>0.0102</b>	<b>2.5000e-004</b>	<b>1.7570</b>

NCWRP Expansion - San Diego County APCD Air District, Annual

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.312 / 0	1.4267	0.0102	2.5000e-004	1.7570
<b>Total</b>		<b>1.4267</b>	<b>0.0102</b>	<b>2.5000e-004</b>	<b>1.7570</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7924	0.1059	0.0000	4.4406
Unmitigated	1.7924	0.1059	0.0000	4.4406

NCWRP Expansion - San Diego County APCD Air District, Annual

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	8.83	1.7924	0.1059	0.0000	4.4406
<b>Total</b>		<b>1.7924</b>	<b>0.1059</b>	<b>0.0000</b>	<b>4.4406</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	8.83	1.7924	0.1059	0.0000	4.4406
<b>Total</b>		<b>1.7924</b>	<b>0.1059</b>	<b>0.0000</b>	<b>4.4406</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## NCWRP Expansion - San Diego County APCD Air District, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCWRP Expansion - San Diego County APCD Air District, Summer

**NCWRP Expansion**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	241.03	1000sqft	5.53	241,034.00	49

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MWhr)</b>	720.49	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCWRP Expansion - San Diego County APCD Air District, Summer

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Grading - See Section 7.1.2 for Construction Details.

Demolition - No demolition of structures.

Trips and VMT - See Section 7.1.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - Based on the traffic information study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment must be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.



## NCWRP Expansion - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	230.00	428.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	5/14/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	2/26/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	9/24/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	9/25/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	2/27/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	75.00	0.00
tblGrading	MaterialExported	0.00	1,644.00
tblLandUse	Population	0.00	49.00

NCWRP Expansion - San Diego County APCD Air District, Summer

tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	298.88	8.83

## NCWRP Expansion - San Diego County APCD Air District, Summer

tblTripsAndVMT	HaulingTripNumber	206.00	1,009.00
tblTripsAndVMT	WorkerTripNumber	101.00	102.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	28.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.35
tblVehicleTrips	SU_TR	0.68	0.10
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	55,738,187.50	312,000.00

## 2.0 Emissions Summary

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NCWRP Expansion - San Diego County APCD Air District, Summer

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	3.7871	38.3716	22.8518	0.0403	0.1314	1.9395	2.0709	0.0349	1.8057	1.8406	0.0000	4,015.3224	4,015.3224	1.0716	0.0000	4,042.1131
2019	3.5762	35.8268	22.5551	0.0498	6.2726	1.7958	7.8645	3.3775	1.6705	4.8468	0.0000	4,903.4578	4,903.4578	1.1687	0.0000	4,919.9801
2020	2.8380	25.0550	21.4967	0.0494	1.1087	1.1760	2.2847	0.3002	1.1231	1.4233	0.0000	4,838.5958	4,838.5958	0.6408	0.0000	4,854.6145
2021	22.6020	22.7987	20.9204	0.0490	1.1087	1.0061	2.1148	0.3002	0.9606	1.2608	0.0000	4,799.0525	4,799.0525	0.7047	0.0000	4,814.6799
<b>Maximum</b>	<b>22.6020</b>	<b>38.3716</b>	<b>22.8518</b>	<b>0.0498</b>	<b>6.2726</b>	<b>1.9395</b>	<b>7.8645</b>	<b>3.3775</b>	<b>1.8057</b>	<b>4.8468</b>	<b>0.0000</b>	<b>4,903.4578</b>	<b>4,903.4578</b>	<b>1.1687</b>	<b>0.0000</b>	<b>4,919.9801</b>





NCWRP Expansion - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831
<b>Total</b>	<b>5.9655</b>	<b>0.8580</b>	<b>2.6526</b>	<b>9.1200e-003</b>	<b>0.7572</b>	<b>8.7600e-003</b>	<b>0.7659</b>	<b>0.2024</b>	<b>8.2300e-003</b>	<b>0.2106</b>		<b>925.0746</b>	<b>925.0746</b>	<b>0.0466</b>	<b>0.0000</b>	<b>926.2394</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831
<b>Total</b>	<b>5.9655</b>	<b>0.8580</b>	<b>2.6526</b>	<b>9.1200e-003</b>	<b>0.7572</b>	<b>8.7600e-003</b>	<b>0.7659</b>	<b>0.2024</b>	<b>8.2300e-003</b>	<b>0.2106</b>		<b>925.0746</b>	<b>925.0746</b>	<b>0.0466</b>	<b>0.0000</b>	<b>926.2394</b>

## NCWRP Expansion - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	2/26/2019	5	107	
2	Grading	Grading	2/27/2019	9/24/2019	5	150	
3	Building Construction	Building Construction	9/25/2019	5/14/2021	5	428	
4	Architectural Coating	Architectural Coating	7/9/2021	12/6/2021	5	107	
5	Paving	Paving	7/9/2021	12/6/2021	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 361,551; Non-Residential Outdoor: 120,517; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## NCWRP Expansion - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Architectural Coating	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
	Concrete/Industrial Saws	1	8.00	81	0.73
	Dumpers/Tenders	1	8.00	16	0.38
Paving	Paving Equipment	2	8.00	132	0.36
	Excavators	1	8.00	158	0.38
	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

NCWRP Expansion - San Diego County APCD Air District, Summer

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	102.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	16.00	0.00	1,009.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>3.7190</b>	<b>38.3225</b>	<b>22.3040</b>	<b>0.0388</b>		<b>1.9386</b>	<b>1.9386</b>		<b>1.8048</b>	<b>1.8048</b>		<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0491	0.5477	1.4400e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		143.5559	143.5559	4.9100e-003		143.6787
<b>Total</b>	<b>0.0681</b>	<b>0.0491</b>	<b>0.5477</b>	<b>1.4400e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>143.5559</b>	<b>143.5559</b>	<b>4.9100e-003</b>		<b>143.6787</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4031	22.5716	24.5968	0.0388		1.0913	1.0913		1.0669	1.0669	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>1.4031</b>	<b>22.5716</b>	<b>24.5968</b>	<b>0.0388</b>		<b>1.0913</b>	<b>1.0913</b>		<b>1.0669</b>	<b>1.0669</b>	<b>0.0000</b>	<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0681	0.0491	0.5477	1.4400e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		143.5559	143.5559	4.9100e-003		143.6787
<b>Total</b>	<b>0.0681</b>	<b>0.0491</b>	<b>0.5477</b>	<b>1.4400e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>143.5559</b>	<b>143.5559</b>	<b>4.9100e-003</b>		<b>143.6787</b>

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>3.5134</b>	<b>35.7830</b>	<b>22.0600</b>	<b>0.0388</b>		<b>1.7949</b>	<b>1.7949</b>		<b>1.6697</b>	<b>1.6697</b>		<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3873	22.3288	24.5506	0.0388		1.0804	1.0804		1.0569	1.0569	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>1.3873</b>	<b>22.3288</b>	<b>24.5506</b>	<b>0.0388</b>		<b>1.0804</b>	<b>1.0804</b>		<b>1.0569</b>	<b>1.0569</b>	<b>0.0000</b>	<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>



NCWRP Expansion - San Diego County APCD Air District, Summer

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.0628</b>	<b>0.0438</b>	<b>0.4951</b>	<b>1.4000e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>139.2319</b>	<b>139.2319</b>	<b>4.4500e-003</b>		<b>139.3431</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0236	0.0000	6.0236	3.3105	0.0000	3.3105			0.0000			0.0000
Off-Road	3.0711	32.4903	20.5118	0.0373		1.5833	1.5833		1.4611	1.4611		3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>3.0711</b>	<b>32.4903</b>	<b>20.5118</b>	<b>0.0373</b>	<b>6.0236</b>	<b>1.5833</b>	<b>7.6070</b>	<b>3.3105</b>	<b>1.4611</b>	<b>4.7716</b>		<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0584	2.0205	0.4362	5.3400e-003	0.1175	7.6200e-003	0.1252	0.0322	7.2900e-003	0.0395		582.1746	582.1746	0.0515		583.4626
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1212</b>	<b>2.0644</b>	<b>0.9312</b>	<b>6.7400e-003</b>	<b>0.2490</b>	<b>8.5600e-003</b>	<b>0.2575</b>	<b>0.0671</b>	<b>8.1500e-003</b>	<b>0.0752</b>		<b>721.4066</b>	<b>721.4066</b>	<b>0.0560</b>		<b>722.8057</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7106	0.0000	2.7106	1.4897	0.0000	1.4897			0.0000			0.0000
Off-Road	1.7634	24.1281	21.1198	0.0373		1.1540	1.1540		1.0972	1.0972	0.0000	3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>1.7634</b>	<b>24.1281</b>	<b>21.1198</b>	<b>0.0373</b>	<b>2.7106</b>	<b>1.1540</b>	<b>3.8646</b>	<b>1.4897</b>	<b>1.0972</b>	<b>2.5869</b>	<b>0.0000</b>	<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0584	2.0205	0.4362	5.3400e-003	0.1175	7.6200e-003	0.1252	0.0322	7.2900e-003	0.0395		582.1746	582.1746	0.0515		583.4626
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0438	0.4951	1.4000e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		139.2319	139.2319	4.4500e-003		139.3431
<b>Total</b>	<b>0.1212</b>	<b>2.0644</b>	<b>0.9312</b>	<b>6.7400e-003</b>	<b>0.2490</b>	<b>8.5600e-003</b>	<b>0.2575</b>	<b>0.0671</b>	<b>8.1500e-003</b>	<b>0.0752</b>		<b>721.4066</b>	<b>721.4066</b>	<b>0.0560</b>		<b>722.8057</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5707	22.1846	17.7738	0.0298		1.3181	1.3181		1.2589	1.2589		2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>2.5707</b>	<b>22.1846</b>	<b>17.7738</b>	<b>0.0298</b>		<b>1.3181</b>	<b>1.3181</b>		<b>1.2589</b>	<b>1.2589</b>		<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1841	4.9595	1.2804	0.0110	0.2708	0.0345	0.3053	0.0780	0.0330	0.1110		1,184.0665	1,184.0665	0.0914		1,186.3520
Worker	0.4005	0.2795	3.1560	8.9100e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		887.6036	887.6036	0.0283		888.3122
<b>Total</b>	<b>0.5846</b>	<b>5.2390</b>	<b>4.4364</b>	<b>0.0200</b>	<b>1.1087</b>	<b>0.0405</b>	<b>1.1492</b>	<b>0.3002</b>	<b>0.0385</b>	<b>0.3387</b>		<b>2,071.6702</b>	<b>2,071.6702</b>	<b>0.1198</b>		<b>2,074.6642</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4950	17.6580	18.2138	0.0298		1.1206	1.1206		1.0847	1.0847	0.0000	2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>1.4950</b>	<b>17.6580</b>	<b>18.2138</b>	<b>0.0298</b>		<b>1.1206</b>	<b>1.1206</b>		<b>1.0847</b>	<b>1.0847</b>	<b>0.0000</b>	<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1841	4.9595	1.2804	0.0110	0.2708	0.0345	0.3053	0.0780	0.0330	0.1110		1,184.0665	1,184.0665	0.0914			1,186.3520
Worker	0.4005	0.2795	3.1560	8.9100e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		887.6036	887.6036	0.0283			888.3122
<b>Total</b>	<b>0.5846</b>	<b>5.2390</b>	<b>4.4364</b>	<b>0.0200</b>	<b>1.1087</b>	<b>0.0405</b>	<b>1.1492</b>	<b>0.3002</b>	<b>0.0385</b>	<b>0.3387</b>		<b>2,071.6702</b>	<b>2,071.6702</b>	<b>0.1198</b>			<b>2,074.6642</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	2.3142	20.2925	17.4563	0.0298		1.1480	1.1480		1.0966	1.0966		2,802.8335	2,802.8335	0.5283			2,816.0414
<b>Total</b>	<b>2.3142</b>	<b>20.2925</b>	<b>17.4563</b>	<b>0.0298</b>		<b>1.1480</b>	<b>1.1480</b>		<b>1.0966</b>	<b>1.0966</b>		<b>2,802.8335</b>	<b>2,802.8335</b>	<b>0.5283</b>			<b>2,816.0414</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1495	4.5103	1.1491	0.0110	0.2708	0.0221	0.2929	0.0780	0.0211	0.0991		1,176.160 3	1,176.160 3	0.0868		1,178.329 5
Worker	0.3743	0.2522	2.8913	8.6300e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		859.6020	859.6020	0.0257		860.2437
<b>Total</b>	<b>0.5238</b>	<b>4.7625</b>	<b>4.0403</b>	<b>0.0196</b>	<b>1.1087</b>	<b>0.0280</b>	<b>1.1366</b>	<b>0.3002</b>	<b>0.0265</b>	<b>0.3267</b>		<b>2,035.762 3</b>	<b>2,035.762 3</b>	<b>0.1124</b>		<b>2,038.573 1</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3848	16.7928	18.1373	0.0298		1.0319	1.0319		1.0008	1.0008	0.0000	2,802.833 4	2,802.833 4	0.5283		2,816.041 4
<b>Total</b>	<b>1.3848</b>	<b>16.7928</b>	<b>18.1373</b>	<b>0.0298</b>		<b>1.0319</b>	<b>1.0319</b>		<b>1.0008</b>	<b>1.0008</b>	<b>0.0000</b>	<b>2,802.833 4</b>	<b>2,802.833 4</b>	<b>0.5283</b>		<b>2,816.041 4</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1495	4.5103	1.1491	0.0110	0.2708	0.0221	0.2929	0.0780	0.0211	0.0991		1,176.1603	1,176.1603	0.0868		1,178.3295
Worker	0.3743	0.2522	2.8913	8.6300e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		859.6020	859.6020	0.0257		860.2437
<b>Total</b>	<b>0.5238</b>	<b>4.7625</b>	<b>4.0403</b>	<b>0.0196</b>	<b>1.1087</b>	<b>0.0280</b>	<b>1.1366</b>	<b>0.3002</b>	<b>0.0265</b>	<b>0.3267</b>		<b>2,035.7623</b>	<b>2,035.7623</b>	<b>0.1124</b>		<b>2,038.5731</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0839	18.4963	17.1770	0.0298		0.9918	0.9918		0.9471	0.9471		2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>2.0839</b>	<b>18.4963</b>	<b>17.1770</b>	<b>0.0298</b>		<b>0.9918</b>	<b>0.9918</b>		<b>0.9471</b>	<b>0.9471</b>		<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1210	4.0732	1.0380	0.0108	0.2708	8.5500e-003	0.2793	0.0780	8.1800e-003	0.0861		1,165.4078	1,165.4078	0.0833		1,167.4896
Worker	0.3528	0.2292	2.7054	8.3400e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		830.7297	830.7297	0.0237		831.3224
<b>Total</b>	<b>0.4738</b>	<b>4.3024</b>	<b>3.7434</b>	<b>0.0192</b>	<b>1.1087</b>	<b>0.0143</b>	<b>1.1230</b>	<b>0.3002</b>	<b>0.0135</b>	<b>0.3137</b>		<b>1,996.1375</b>	<b>1,996.1375</b>	<b>0.1070</b>		<b>1,998.8120</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2825	15.9688	18.0647	0.0298		0.9486	0.9486		0.9218	0.9218	0.0000	2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>1.2825</b>	<b>15.9688</b>	<b>18.0647</b>	<b>0.0298</b>		<b>0.9486</b>	<b>0.9486</b>		<b>0.9218</b>	<b>0.9218</b>	<b>0.0000</b>	<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>



NCWRP Expansion - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1210	4.0732	1.0380	0.0108	0.2708	8.5500e-003	0.2793	0.0780	8.1800e-003	0.0861		1,165.4078	1,165.4078	0.0833		1,167.4896
Worker	0.3528	0.2292	2.7054	8.3400e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		830.7297	830.7297	0.0237		831.3224
<b>Total</b>	<b>0.4738</b>	<b>4.3024</b>	<b>3.7434</b>	<b>0.0192</b>	<b>1.1087</b>	<b>0.0143</b>	<b>1.1230</b>	<b>0.3002</b>	<b>0.0135</b>	<b>0.3137</b>		<b>1,996.1375</b>	<b>1,996.1375</b>	<b>0.1070</b>		<b>1,998.8120</b>

**3.5 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7021	6.8534	4.3933	9.6900e-003		0.3211	0.3211		0.3054	0.3054		930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.5842</b>	<b>6.8534</b>	<b>4.3933</b>	<b>9.6900e-003</b>		<b>0.3211</b>	<b>0.3211</b>		<b>0.3054</b>	<b>0.3054</b>		<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.5 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0449	0.5305	1.6300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		162.8882	162.8882	4.6500e-003		163.0044
<b>Total</b>	<b>0.0692</b>	<b>0.0449</b>	<b>0.5305</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>162.8882</b>	<b>162.8882</b>	<b>4.6500e-003</b>		<b>163.0044</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2201	4.5324	5.4950	9.6900e-003		0.2301	0.2301		0.2301	0.2301	0.0000	930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.1022</b>	<b>4.5324</b>	<b>5.4950</b>	<b>9.6900e-003</b>		<b>0.2301</b>	<b>0.2301</b>		<b>0.2301</b>	<b>0.2301</b>	<b>0.0000</b>	<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.5 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0692	0.0449	0.5305	1.6300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		162.8882	162.8882	4.6500e-003		163.0044
<b>Total</b>	<b>0.0692</b>	<b>0.0449</b>	<b>0.5305</b>	<b>1.6300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>162.8882</b>	<b>162.8882</b>	<b>4.6500e-003</b>		<b>163.0044</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8933	8.8645	10.1188	0.0162		0.4522	0.4522		0.4174	0.4174		1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8933</b>	<b>8.8645</b>	<b>10.1188</b>	<b>0.0162</b>		<b>0.4522</b>	<b>0.4522</b>		<b>0.4174</b>	<b>0.4174</b>		<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0360	0.4244	1.3100e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		130.3105	130.3105	3.7200e-003		130.4035
<b>Total</b>	<b>0.0553</b>	<b>0.0360</b>	<b>0.4244</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>130.3105</b>	<b>130.3105</b>	<b>3.7200e-003</b>		<b>130.4035</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5640	7.5837	10.6296	0.0162		0.4024	0.4024		0.3871	0.3871	0.0000	1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5640</b>	<b>7.5837</b>	<b>10.6296</b>	<b>0.0162</b>		<b>0.4024</b>	<b>0.4024</b>		<b>0.3871</b>	<b>0.3871</b>	<b>0.0000</b>	<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0360	0.4244	1.3100e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		130.3105	130.3105	3.7200e-003		130.4035
<b>Total</b>	<b>0.0553</b>	<b>0.0360</b>	<b>0.4244</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>130.3105</b>	<b>130.3105</b>	<b>3.7200e-003</b>		<b>130.4035</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCWRP Expansion - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831
Unmitigated	0.1928	0.8577	2.6279	9.1200e-003	0.7572	8.6700e-003	0.7659	0.2024	8.1400e-003	0.2105		925.0218	925.0218	0.0465		926.1831

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	24.10	83.84	24.10	138,996	138,996
Total	24.10	83.84	24.10	138,996	138,996

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N

NCWRP Expansion - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior



NCWRP Expansion - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Unmitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

NCWRP Expansion - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

NCWRP Expansion - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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NCWRP Expansion - San Diego County APCD Air District, Winter

**NCWRP Expansion**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	241.03	1000sqft	5.53	241,034.00	49

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2020
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

NCWRP Expansion - San Diego County APCD Air District, Winter

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description.

Construction Phase - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Off-road Equipment - See Section 7.1.2 for Construction Details.

Grading - See Section 7.1.2 for Construction Details.

Demolition - No demolition of structures.

Trips and VMT - See Section 7.1.2 for Construction Details.

On-road Fugitive Dust - CalEEMod defaults.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1.

Vehicle Trips - Based on the traffic information study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust -

Woodstoves -

Consumer Products -

Area Coating - In accordance with SDAPCD Rule 67.0.1.

Landscape Equipment -

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on information provided by the City.

Solid Waste - EPA waste generation of 4.46 lb/person/day.

Construction Off-road Equipment Mitigation - Per MM-AQ-1, all construction equipment must be at least Tier 3.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1.



NCWRP Expansion - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	230.00	428.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	150.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	5/14/2021
tblConstructionPhase	PhaseEndDate	9/30/2018	2/26/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	9/24/2019
tblConstructionPhase	PhaseEndDate	9/30/2018	12/6/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblConstructionPhase	PhaseStartDate	10/1/2018	9/25/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	2/27/2019
tblConstructionPhase	PhaseStartDate	10/1/2018	7/9/2021
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	75.00	0.00
tblGrading	MaterialExported	0.00	1,644.00
tblLandUse	Population	0.00	49.00

NCWRP Expansion - San Diego County APCD Air District, Winter

tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblSolidWaste	SolidWasteGenerationRate	298.88	8.83



## NCWRP Expansion - San Diego County APCD Air District, Winter

tblTripsAndVMT	HaulingTripNumber	206.00	1,009.00
tblTripsAndVMT	WorkerTripNumber	101.00	102.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	28.00	16.00
tblTripsAndVMT	WorkerTripNumber	13.00	16.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	11.70
tblVehicleTrips	CNW_TTP	13.00	100.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	0.35
tblVehicleTrips	SU_TR	0.68	0.10
tblVehicleTrips	WD_TR	6.97	0.10
tblWater	IndoorWaterUseRate	55,738,187.50	312,000.00

## 2.0 Emissions Summary

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NCWRP Expansion - San Diego County APCD Air District, Winter

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	3.7959	38.3776	22.8236	0.0402	0.1314	1.9395	2.0709	0.0349	1.8057	1.8406	0.0000	4,006.5389	4,006.5389	1.0714	0.0000	4,033.3235
2019	3.5844	35.8322	22.5279	0.0490	6.2726	1.7958	7.8647	3.3775	1.6705	4.8470	0.0000	4,819.0407	4,819.0407	1.1704	0.0000	4,835.6724
2020	2.8947	25.0823	21.4574	0.0486	1.1087	1.1764	2.2851	0.3002	1.1235	1.4237	0.0000	4,755.6369	4,755.6369	0.6448	0.0000	4,771.7573
2021	22.6187	22.8160	20.8759	0.0482	1.1087	1.0065	2.1151	0.3002	0.9610	1.2612	0.0000	4,718.0308	4,718.0308	0.7042	0.0000	4,733.7548
<b>Maximum</b>	<b>22.6187</b>	<b>38.3776</b>	<b>22.8236</b>	<b>0.0490</b>	<b>6.2726</b>	<b>1.9395</b>	<b>7.8647</b>	<b>3.3775</b>	<b>1.8057</b>	<b>4.8470</b>	<b>0.0000</b>	<b>4,819.0407</b>	<b>4,819.0407</b>	<b>1.1704</b>	<b>0.0000</b>	<b>4,835.6724</b>



NCWRP Expansion - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465
<b>Total</b>	<b>5.9606</b>	<b>0.8905</b>	<b>2.5593</b>	<b>8.6500e-003</b>	<b>0.7572</b>	<b>8.8000e-003</b>	<b>0.7660</b>	<b>0.2024</b>	<b>8.2600e-003</b>	<b>0.2107</b>		<b>877.7462</b>	<b>877.7462</b>	<b>0.0463</b>	<b>0.0000</b>	<b>878.9028</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465
<b>Total</b>	<b>5.9606</b>	<b>0.8905</b>	<b>2.5593</b>	<b>8.6500e-003</b>	<b>0.7572</b>	<b>8.8000e-003</b>	<b>0.7660</b>	<b>0.2024</b>	<b>8.2600e-003</b>	<b>0.2107</b>		<b>877.7462</b>	<b>877.7462</b>	<b>0.0463</b>	<b>0.0000</b>	<b>878.9028</b>

## NCWRP Expansion - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2018	2/26/2019	5	107	
2	Grading	Grading	2/27/2019	9/24/2019	5	150	
3	Building Construction	Building Construction	9/25/2019	5/14/2021	5	428	
4	Architectural Coating	Architectural Coating	7/9/2021	12/6/2021	5	107	
5	Paving	Paving	7/9/2021	12/6/2021	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 361,551; Non-Residential Outdoor: 120,517; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## NCWRP Expansion - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Architectural Coating	Cranes	1	8.00	231	0.29
Paving	Dumpers/Tenders	1	8.00	16	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
	Concrete/Industrial Saws	1	8.00	81	0.73
	Dumpers/Tenders	1	8.00	16	0.38
Paving	Paving Equipment	2	8.00	132	0.36
	Excavators	1	8.00	158	0.38
	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Dumpers/Tenders	2	8.00	16	0.38
Grading	Excavators	2	8.00	158	0.38
Grading	Plate Compactors	2	8.00	8	0.43
Building Construction	Welders	1	8.00	46	0.45
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

NCWRP Expansion - San Diego County APCD Air District, Winter

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	2	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	102.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	16.00	0.00	1,009.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	16.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Demolition - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>3.7190</b>	<b>38.3225</b>	<b>22.3040</b>	<b>0.0388</b>		<b>1.9386</b>	<b>1.9386</b>		<b>1.8048</b>	<b>1.8048</b>		<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0769	0.0551	0.5196	1.3500e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		134.7724	134.7724	4.6700e-003		134.8891
<b>Total</b>	<b>0.0769</b>	<b>0.0551</b>	<b>0.5196</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>134.7724</b>	<b>134.7724</b>	<b>4.6700e-003</b>		<b>134.8891</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4031	22.5716	24.5968	0.0388		1.0913	1.0913		1.0669	1.0669	0.0000	3,871.7665	3,871.7665	1.0667		3,898.4344
<b>Total</b>	<b>1.4031</b>	<b>22.5716</b>	<b>24.5968</b>	<b>0.0388</b>		<b>1.0913</b>	<b>1.0913</b>		<b>1.0669</b>	<b>1.0669</b>	<b>0.0000</b>	<b>3,871.7665</b>	<b>3,871.7665</b>	<b>1.0667</b>		<b>3,898.4344</b>



NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0769	0.0551	0.5196	1.3500e-003	0.1314	9.5000e-004	0.1324	0.0349	8.7000e-004	0.0357		134.7724	134.7724	4.6700e-003		134.8891
<b>Total</b>	<b>0.0769</b>	<b>0.0551</b>	<b>0.5196</b>	<b>1.3500e-003</b>	<b>0.1314</b>	<b>9.5000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.7000e-004</b>	<b>0.0357</b>		<b>134.7724</b>	<b>134.7724</b>	<b>4.6700e-003</b>		<b>134.8891</b>

**3.2 Demolition - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>3.5134</b>	<b>35.7830</b>	<b>22.0600</b>	<b>0.0388</b>		<b>1.7949</b>	<b>1.7949</b>		<b>1.6697</b>	<b>1.6697</b>		<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3873	22.3288	24.5506	0.0388		1.0804	1.0804		1.0569	1.0569	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
<b>Total</b>	<b>1.3873</b>	<b>22.3288</b>	<b>24.5506</b>	<b>0.0388</b>		<b>1.0804</b>	<b>1.0804</b>		<b>1.0569</b>	<b>1.0569</b>	<b>0.0000</b>	<b>3,816.8994</b>	<b>3,816.8994</b>	<b>1.0618</b>		<b>3,843.4451</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.2 Demolition - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.0711</b>	<b>0.0492</b>	<b>0.4678</b>	<b>1.3100e-003</b>	<b>0.1314</b>	<b>9.4000e-004</b>	<b>0.1324</b>	<b>0.0349</b>	<b>8.6000e-004</b>	<b>0.0357</b>		<b>130.7062</b>	<b>130.7062</b>	<b>4.2200e-003</b>		<b>130.8116</b>

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0236	0.0000	6.0236	3.3105	0.0000	3.3105			0.0000			0.0000
Off-Road	3.0711	32.4903	20.5118	0.0373		1.5833	1.5833		1.4611	1.4611		3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>3.0711</b>	<b>32.4903</b>	<b>20.5118</b>	<b>0.0373</b>	<b>6.0236</b>	<b>1.5833</b>	<b>7.6070</b>	<b>3.3105</b>	<b>1.4611</b>	<b>4.7716</b>		<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0600	2.0412	0.4674	5.2500e-003	0.1175	7.8000e-003	0.1253	0.0322	7.4700e-003	0.0397		572.3780	572.3780	0.0534		573.7126
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1311</b>	<b>2.0905</b>	<b>0.9352</b>	<b>6.5600e-003</b>	<b>0.2490</b>	<b>8.7400e-003</b>	<b>0.2577</b>	<b>0.0671</b>	<b>8.3300e-003</b>	<b>0.0754</b>		<b>703.0842</b>	<b>703.0842</b>	<b>0.0576</b>		<b>704.5243</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.7106	0.0000	2.7106	1.4897	0.0000	1.4897			0.0000			0.0000
Off-Road	1.7634	24.1281	21.1198	0.0373		1.1540	1.1540		1.0972	1.0972	0.0000	3,643.8830	3,643.8830	1.1128		3,671.7017
<b>Total</b>	<b>1.7634</b>	<b>24.1281</b>	<b>21.1198</b>	<b>0.0373</b>	<b>2.7106</b>	<b>1.1540</b>	<b>3.8646</b>	<b>1.4897</b>	<b>1.0972</b>	<b>2.5869</b>	<b>0.0000</b>	<b>3,643.8830</b>	<b>3,643.8830</b>	<b>1.1128</b>		<b>3,671.7017</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.3 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0600	2.0412	0.4674	5.2500e-003	0.1175	7.8000e-003	0.1253	0.0322	7.4700e-003	0.0397		572.3780	572.3780	0.0534		573.7126
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0711	0.0492	0.4678	1.3100e-003	0.1314	9.4000e-004	0.1324	0.0349	8.6000e-004	0.0357		130.7062	130.7062	4.2200e-003		130.8116
<b>Total</b>	<b>0.1311</b>	<b>2.0905</b>	<b>0.9352</b>	<b>6.5600e-003</b>	<b>0.2490</b>	<b>8.7400e-003</b>	<b>0.2577</b>	<b>0.0671</b>	<b>8.3300e-003</b>	<b>0.0754</b>		<b>703.0842</b>	<b>703.0842</b>	<b>0.0576</b>		<b>704.5243</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5707	22.1846	17.7738	0.0298		1.3181	1.3181		1.2589	1.2589		2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>2.5707</b>	<b>22.1846</b>	<b>17.7738</b>	<b>0.0298</b>		<b>1.3181</b>	<b>1.3181</b>		<b>1.2589</b>	<b>1.2589</b>		<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1920	4.9635	1.4196	0.0108	0.2708	0.0351	0.3059	0.0780	0.0336	0.1115		1,154.0010	1,154.0010	0.0973		1,156.4323
Worker	0.4530	0.3139	2.9824	8.3700e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		833.2520	833.2520	0.0269		833.9242
<b>Total</b>	<b>0.6450</b>	<b>5.2774</b>	<b>4.4020</b>	<b>0.0191</b>	<b>1.1087</b>	<b>0.0411</b>	<b>1.1498</b>	<b>0.3002</b>	<b>0.0391</b>	<b>0.3393</b>		<b>1,987.2530</b>	<b>1,987.2530</b>	<b>0.1241</b>		<b>1,990.3564</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4950	17.6580	18.2138	0.0298		1.1206	1.1206		1.0847	1.0847	0.0000	2,831.7876	2,831.7876	0.5411		2,845.3160
<b>Total</b>	<b>1.4950</b>	<b>17.6580</b>	<b>18.2138</b>	<b>0.0298</b>		<b>1.1206</b>	<b>1.1206</b>		<b>1.0847</b>	<b>1.0847</b>	<b>0.0000</b>	<b>2,831.7876</b>	<b>2,831.7876</b>	<b>0.5411</b>		<b>2,845.3160</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1920	4.9635	1.4196	0.0108	0.2708	0.0351	0.3059	0.0780	0.0336	0.1115		1,154.0010	1,154.0010	0.0973		1,156.4323
Worker	0.4530	0.3139	2.9824	8.3700e-003	0.8379	5.9700e-003	0.8439	0.2223	5.5000e-003	0.2278		833.2520	833.2520	0.0269		833.9242
<b>Total</b>	<b>0.6450</b>	<b>5.2774</b>	<b>4.4020</b>	<b>0.0191</b>	<b>1.1087</b>	<b>0.0411</b>	<b>1.1498</b>	<b>0.3002</b>	<b>0.0391</b>	<b>0.3393</b>		<b>1,987.2530</b>	<b>1,987.2530</b>	<b>0.1241</b>		<b>1,990.3564</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	20.2925	17.4563	0.0298		1.1480	1.1480		1.0966	1.0966		2,802.8335	2,802.8335	0.5283		2,816.0414
<b>Total</b>	<b>2.3142</b>	<b>20.2925</b>	<b>17.4563</b>	<b>0.0298</b>		<b>1.1480</b>	<b>1.1480</b>		<b>1.0966</b>	<b>1.0966</b>		<b>2,802.8335</b>	<b>2,802.8335</b>	<b>0.5283</b>		<b>2,816.0414</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1566	4.5067	1.2752	0.0107	0.2708	0.0225	0.2933	0.0780	0.0215	0.0995		1,145.8489	1,145.8489	0.0922		1,148.1539
Worker	0.4239	0.2832	2.7259	8.1000e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		806.9546	806.9546	0.0243		807.5620
<b>Total</b>	<b>0.5805</b>	<b>4.7898</b>	<b>4.0011</b>	<b>0.0188</b>	<b>1.1087</b>	<b>0.0284</b>	<b>1.1371</b>	<b>0.3002</b>	<b>0.0269</b>	<b>0.3271</b>		<b>1,952.8035</b>	<b>1,952.8035</b>	<b>0.1165</b>		<b>1,955.7159</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3848	16.7928	18.1373	0.0298		1.0319	1.0319		1.0008	1.0008	0.0000	2,802.8334	2,802.8334	0.5283		2,816.0414
<b>Total</b>	<b>1.3848</b>	<b>16.7928</b>	<b>18.1373</b>	<b>0.0298</b>		<b>1.0319</b>	<b>1.0319</b>		<b>1.0008</b>	<b>1.0008</b>	<b>0.0000</b>	<b>2,802.8334</b>	<b>2,802.8334</b>	<b>0.5283</b>		<b>2,816.0414</b>



NCWRP Expansion - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1566	4.5067	1.2752	0.0107	0.2708	0.0225	0.2933	0.0780	0.0215	0.0995		1,145.8489	1,145.8489	0.0922		1,148.1539
Worker	0.4239	0.2832	2.7259	8.1000e-003	0.8379	5.8800e-003	0.8438	0.2223	5.4200e-003	0.2277		806.9546	806.9546	0.0243		807.5620
<b>Total</b>	<b>0.5805</b>	<b>4.7898</b>	<b>4.0011</b>	<b>0.0188</b>	<b>1.1087</b>	<b>0.0284</b>	<b>1.1371</b>	<b>0.3002</b>	<b>0.0269</b>	<b>0.3271</b>		<b>1,952.8035</b>	<b>1,952.8035</b>	<b>0.1165</b>		<b>1,955.7159</b>

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0839	18.4963	17.1770	0.0298		0.9918	0.9918		0.9471	0.9471		2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>2.0839</b>	<b>18.4963</b>	<b>17.1770</b>	<b>0.0298</b>		<b>0.9918</b>	<b>0.9918</b>		<b>0.9471</b>	<b>0.9471</b>		<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1275	4.0623	1.1558	0.0106	0.2708	8.9000e-003	0.2797	0.0780	8.5100e-003	0.0865		1,135.2772	1,135.2772	0.0884		1,137.4882
Worker	0.4001	0.2573	2.5431	7.8300e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		779.8385	779.8385	0.0224		780.3986
<b>Total</b>	<b>0.5276</b>	<b>4.3196</b>	<b>3.6989</b>	<b>0.0184</b>	<b>1.1087</b>	<b>0.0147</b>	<b>1.1234</b>	<b>0.3002</b>	<b>0.0138</b>	<b>0.3140</b>		<b>1,915.1157</b>	<b>1,915.1157</b>	<b>0.1108</b>		<b>1,917.8869</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2825	15.9688	18.0647	0.0298		0.9486	0.9486		0.9218	0.9218	0.0000	2,802.9150	2,802.9150	0.5181		2,815.8679
<b>Total</b>	<b>1.2825</b>	<b>15.9688</b>	<b>18.0647</b>	<b>0.0298</b>		<b>0.9486</b>	<b>0.9486</b>		<b>0.9218</b>	<b>0.9218</b>	<b>0.0000</b>	<b>2,802.9150</b>	<b>2,802.9150</b>	<b>0.5181</b>		<b>2,815.8679</b>

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**3.4 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1275	4.0623	1.1558	0.0106	0.2708	8.9000e-003	0.2797	0.0780	8.5100e-003	0.0865		1,135.2772	1,135.2772	0.0884		1,137.4882
Worker	0.4001	0.2573	2.5431	7.8300e-003	0.8379	5.7900e-003	0.8437	0.2223	5.3300e-003	0.2276		779.8385	779.8385	0.0224		780.3986
<b>Total</b>	<b>0.5276</b>	<b>4.3196</b>	<b>3.6989</b>	<b>0.0184</b>	<b>1.1087</b>	<b>0.0147</b>	<b>1.1234</b>	<b>0.3002</b>	<b>0.0138</b>	<b>0.3140</b>		<b>1,915.1157</b>	<b>1,915.1157</b>	<b>0.1108</b>		<b>1,917.8869</b>

**3.5 Architectural Coating - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7021	6.8534	4.3933	9.6900e-003		0.3211	0.3211		0.3054	0.3054		930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.5842</b>	<b>6.8534</b>	<b>4.3933</b>	<b>9.6900e-003</b>		<b>0.3211</b>	<b>0.3211</b>		<b>0.3054</b>	<b>0.3054</b>		<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

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**3.5 Architectural Coating - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0505	0.4987	1.5300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		152.9095	152.9095	4.3900e-003		153.0193
<b>Total</b>	<b>0.0785</b>	<b>0.0505</b>	<b>0.4987</b>	<b>1.5300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>152.9095</b>	<b>152.9095</b>	<b>4.3900e-003</b>		<b>153.0193</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	20.8821					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2201	4.5324	5.4950	9.6900e-003		0.2301	0.2301		0.2301	0.2301	0.0000	930.3421	930.3421	0.2053		935.4740
<b>Total</b>	<b>21.1022</b>	<b>4.5324</b>	<b>5.4950</b>	<b>9.6900e-003</b>		<b>0.2301</b>	<b>0.2301</b>		<b>0.2301</b>	<b>0.2301</b>	<b>0.0000</b>	<b>930.3421</b>	<b>930.3421</b>	<b>0.2053</b>		<b>935.4740</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.5 Architectural Coating - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0785	0.0505	0.4987	1.5300e-003	0.1643	1.1300e-003	0.1654	0.0436	1.0500e-003	0.0446		152.9095	152.9095	4.3900e-003		153.0193
<b>Total</b>	<b>0.0785</b>	<b>0.0505</b>	<b>0.4987</b>	<b>1.5300e-003</b>	<b>0.1643</b>	<b>1.1300e-003</b>	<b>0.1654</b>	<b>0.0436</b>	<b>1.0500e-003</b>	<b>0.0446</b>		<b>152.9095</b>	<b>152.9095</b>	<b>4.3900e-003</b>		<b>153.0193</b>

**3.6 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8933	8.8645	10.1188	0.0162		0.4522	0.4522		0.4174	0.4174		1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8933</b>	<b>8.8645</b>	<b>10.1188</b>	<b>0.0162</b>		<b>0.4522</b>	<b>0.4522</b>		<b>0.4174</b>	<b>0.4174</b>		<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.6 Paving - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0404	0.3989	1.2300e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		122.3276	122.3276	3.5100e-003		122.4155
<b>Total</b>	<b>0.0628</b>	<b>0.0404</b>	<b>0.3989</b>	<b>1.2300e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>122.3276</b>	<b>122.3276</b>	<b>3.5100e-003</b>		<b>122.4155</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5640	7.5837	10.6296	0.0162		0.4024	0.4024		0.3871	0.3871	0.0000	1,559.0015	1,559.0015	0.4910		1,571.2776
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.5640</b>	<b>7.5837</b>	<b>10.6296</b>	<b>0.0162</b>		<b>0.4024</b>	<b>0.4024</b>		<b>0.3871</b>	<b>0.3871</b>	<b>0.0000</b>	<b>1,559.0015</b>	<b>1,559.0015</b>	<b>0.4910</b>		<b>1,571.2776</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**3.6 Paving - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0628	0.0404	0.3989	1.2300e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		122.3276	122.3276	3.5100e-003		122.4155
<b>Total</b>	<b>0.0628</b>	<b>0.0404</b>	<b>0.3989</b>	<b>1.2300e-003</b>	<b>0.1314</b>	<b>9.1000e-004</b>	<b>0.1323</b>	<b>0.0349</b>	<b>8.4000e-004</b>	<b>0.0357</b>		<b>122.3276</b>	<b>122.3276</b>	<b>3.5100e-003</b>		<b>122.4155</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

NCWRP Expansion - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465
Unmitigated	0.1879	0.8903	2.5345	8.6500e-003	0.7572	8.7100e-003	0.7659	0.2024	8.1700e-003	0.2106		877.6934	877.6934	0.0461		878.8465

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	24.10	83.84	24.10	138,996	138,996
Total	24.10	83.84	24.10	138,996	138,996

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	11.70	0.00	0.00	100.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.588316	0.042913	0.184449	0.110793	0.017294	0.005558	0.015534	0.023021	0.001902	0.002024	0.006181	0.000745	0.001271

5.0 Energy Detail

Historical Energy Use: N



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**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

NCWRP Expansion - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
Unmitigated	5.7726	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

NCWRP Expansion - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6122					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.1581					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.3300e-003	2.3000e-004	0.0248	0.0000		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005		0.0528	0.0528	1.4000e-004		0.0563
<b>Total</b>	<b>5.7726</b>	<b>2.3000e-004</b>	<b>0.0248</b>	<b>0.0000</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>9.0000e-005</b>	<b>9.0000e-005</b>		<b>0.0528</b>	<b>0.0528</b>	<b>1.4000e-004</b>		<b>0.0563</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

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Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**North City Pump Station**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.50	1000sqft	0.13	5,500.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.





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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	15.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	6.82	0.29
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00

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tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	26.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,271,875.00	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-21-2019	8-20-2019	1.0694	0.7455
2	8-21-2019	11-20-2019	0.6779	0.4609
3	11-21-2019	2-20-2020	0.6472	0.4605
4	2-21-2020	5-20-2020	0.6084	0.4496
5	5-21-2020	8-20-2020	0.3769	0.2823
		Highest	1.0694	0.7455

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0240	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0240</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0444</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0224	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0224</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>0.0443</b>	<b>0.1065</b>	<b>3.8200e-003</b>	<b>1.0000e-005</b>	<b>0.2045</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.66	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.05	0.00	0.00	0.02

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/21/2019	6/10/2019	5	15	
2	Trenching	Trenching	6/11/2019	8/19/2019	5	50	
3	Building Construction	Building Construction	8/20/2019	7/6/2020	5	230	
4	Paving	Paving	7/7/2020	7/13/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.2363	0.1233	2.1000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	19.1670	19.1670	6.0600e-003	0.0000	19.3186
<b>Total</b>	<b>0.0225</b>	<b>0.2363</b>	<b>0.1233</b>	<b>2.1000e-004</b>	<b>0.0903</b>	<b>0.0121</b>	<b>0.1025</b>	<b>0.0497</b>	<b>0.0112</b>	<b>0.0608</b>	<b>0.0000</b>	<b>19.1670</b>	<b>19.1670</b>	<b>6.0600e-003</b>	<b>0.0000</b>	<b>19.3186</b>



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**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2300e-003	0.1051	0.1325	2.1000e-004		5.0100e-003	5.0100e-003		5.0100e-003	5.0100e-003	0.0000	19.1670	19.1670	6.0600e-003	0.0000	19.3186
<b>Total</b>	<b>5.2300e-003</b>	<b>0.1051</b>	<b>0.1325</b>	<b>2.1000e-004</b>	<b>0.0407</b>	<b>5.0100e-003</b>	<b>0.0457</b>	<b>0.0223</b>	<b>5.0100e-003</b>	<b>0.0274</b>	<b>0.0000</b>	<b>19.1670</b>	<b>19.1670</b>	<b>6.0600e-003</b>	<b>0.0000</b>	<b>19.3186</b>

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**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	3.2000e-004	3.0700e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7859	0.7859	3.0000e-005	0.0000	0.7866
<b>Total</b>	<b>4.1000e-004</b>	<b>3.2000e-004</b>	<b>3.0700e-003</b>	<b>1.0000e-005</b>	<b>8.4000e-004</b>	<b>1.0000e-005</b>	<b>8.5000e-004</b>	<b>2.2000e-004</b>	<b>1.0000e-005</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.7859</b>	<b>0.7859</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.7866</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0846	0.7137	0.6565	1.1600e-003		0.0389	0.0389		0.0366	0.0366	0.0000	101.4245	101.4245	0.0274	0.0000	102.1090
<b>Total</b>	<b>0.0846</b>	<b>0.7137</b>	<b>0.6565</b>	<b>1.1600e-003</b>		<b>0.0389</b>	<b>0.0389</b>		<b>0.0366</b>	<b>0.0366</b>	<b>0.0000</b>	<b>101.4245</b>	<b>101.4245</b>	<b>0.0274</b>	<b>0.0000</b>	<b>102.1090</b>

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**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-003	1.9700e-003	0.0190	5.0000e-005	5.2100e-003	4.0000e-005	5.2500e-003	1.3900e-003	4.0000e-005	1.4200e-003	0.0000	4.8652	4.8652	1.6000e-004	0.0000	4.8691
<b>Total</b>	<b>2.5600e-003</b>	<b>1.9700e-003</b>	<b>0.0190</b>	<b>5.0000e-005</b>	<b>5.2100e-003</b>	<b>4.0000e-005</b>	<b>5.2500e-003</b>	<b>1.3900e-003</b>	<b>4.0000e-005</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>4.8652</b>	<b>4.8652</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>4.8691</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0299	0.5952	0.7586	1.1600e-003		0.0332	0.0332		0.0332	0.0332	0.0000	101.4244	101.4244	0.0274	0.0000	102.1089
<b>Total</b>	<b>0.0299</b>	<b>0.5952</b>	<b>0.7586</b>	<b>1.1600e-003</b>		<b>0.0332</b>	<b>0.0332</b>		<b>0.0332</b>	<b>0.0332</b>	<b>0.0000</b>	<b>101.4244</b>	<b>101.4244</b>	<b>0.0274</b>	<b>0.0000</b>	<b>102.1089</b>

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**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5600e-003	1.9700e-003	0.0190	5.0000e-005	5.2100e-003	4.0000e-005	5.2500e-003	1.3900e-003	4.0000e-005	1.4200e-003	0.0000	4.8652	4.8652	1.6000e-004	0.0000	4.8691
<b>Total</b>	<b>2.5600e-003</b>	<b>1.9700e-003</b>	<b>0.0190</b>	<b>5.0000e-005</b>	<b>5.2100e-003</b>	<b>4.0000e-005</b>	<b>5.2500e-003</b>	<b>1.3900e-003</b>	<b>4.0000e-005</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>4.8652</b>	<b>4.8652</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>4.8691</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1025	0.8665	0.7052	1.1000e-003		0.0486	0.0486		0.0455	0.0455	0.0000	95.2979	95.2979	0.0275	0.0000	95.9843
<b>Total</b>	<b>0.1025</b>	<b>0.8665</b>	<b>0.7052</b>	<b>1.1000e-003</b>		<b>0.0486</b>	<b>0.0486</b>		<b>0.0455</b>	<b>0.0455</b>	<b>0.0000</b>	<b>95.2979</b>	<b>95.2979</b>	<b>0.0275</b>	<b>0.0000</b>	<b>95.9843</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0121	3.2400e-003	3.0000e-005	6.4000e-004	8.0000e-005	7.2000e-004	1.8000e-004	8.0000e-005	2.6000e-004	0.0000	2.5505	2.5505	2.0000e-004	0.0000	2.5556
Worker	4.9200e-003	3.7800e-003	0.0365	1.0000e-004	0.0100	7.0000e-005	0.0101	2.6600e-003	7.0000e-005	2.7300e-003	0.0000	9.3412	9.3412	3.0000e-004	0.0000	9.3488
<b>Total</b>	<b>5.3700e-003</b>	<b>0.0158</b>	<b>0.0398</b>	<b>1.3000e-004</b>	<b>0.0107</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>2.8400e-003</b>	<b>1.5000e-004</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>11.8918</b>	<b>11.8918</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>11.9044</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.6208	0.7327	1.1000e-003		0.0377	0.0377		0.0377	0.0377	0.0000	95.2978	95.2978	0.0275	0.0000	95.9842
<b>Total</b>	<b>0.0313</b>	<b>0.6208</b>	<b>0.7327</b>	<b>1.1000e-003</b>		<b>0.0377</b>	<b>0.0377</b>		<b>0.0377</b>	<b>0.0377</b>	<b>0.0000</b>	<b>95.2978</b>	<b>95.2978</b>	<b>0.0275</b>	<b>0.0000</b>	<b>95.9842</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5000e-004	0.0121	3.2400e-003	3.0000e-005	6.4000e-004	8.0000e-005	7.2000e-004	1.8000e-004	8.0000e-005	2.6000e-004	0.0000	2.5505	2.5505	2.0000e-004	0.0000	2.5556
Worker	4.9200e-003	3.7800e-003	0.0365	1.0000e-004	0.0100	7.0000e-005	0.0101	2.6600e-003	7.0000e-005	2.7300e-003	0.0000	9.3412	9.3412	3.0000e-004	0.0000	9.3488
<b>Total</b>	<b>5.3700e-003</b>	<b>0.0158</b>	<b>0.0398</b>	<b>1.3000e-004</b>	<b>0.0107</b>	<b>1.5000e-004</b>	<b>0.0108</b>	<b>2.8400e-003</b>	<b>1.5000e-004</b>	<b>2.9900e-003</b>	<b>0.0000</b>	<b>11.8918</b>	<b>11.8918</b>	<b>5.0000e-004</b>	<b>0.0000</b>	<b>11.9044</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1288	1.1124	0.9629	1.5400e-003		0.0592	0.0592		0.0554	0.0554	0.0000	130.6728	130.6728	0.0378	0.0000	131.6186
<b>Total</b>	<b>0.1288</b>	<b>1.1124</b>	<b>0.9629</b>	<b>1.5400e-003</b>		<b>0.0592</b>	<b>0.0592</b>		<b>0.0554</b>	<b>0.0554</b>	<b>0.0000</b>	<b>130.6728</b>	<b>130.6728</b>	<b>0.0378</b>	<b>0.0000</b>	<b>131.6186</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0153	4.0600e-003	4.0000e-005	8.9000e-004	7.0000e-005	9.6000e-004	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	3.5357	3.5357	2.7000e-004	0.0000	3.5425
Worker	6.4200e-003	4.7500e-003	0.0466	1.4000e-004	0.0140	1.0000e-004	0.0141	3.7100e-003	9.0000e-005	3.8000e-003	0.0000	12.6273	12.6273	3.8000e-004	0.0000	12.6368
<b>Total</b>	<b>6.9300e-003</b>	<b>0.0200</b>	<b>0.0507</b>	<b>1.8000e-004</b>	<b>0.0149</b>	<b>1.7000e-004</b>	<b>0.0150</b>	<b>3.9700e-003</b>	<b>1.6000e-004</b>	<b>4.1300e-003</b>	<b>0.0000</b>	<b>16.1631</b>	<b>16.1631</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>16.1793</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0437	0.8665	1.0227	1.5400e-003		0.0526	0.0526		0.0526	0.0526	0.0000	130.6726	130.6726	0.0378	0.0000	131.6184
<b>Total</b>	<b>0.0437</b>	<b>0.8665</b>	<b>1.0227</b>	<b>1.5400e-003</b>		<b>0.0526</b>	<b>0.0526</b>		<b>0.0526</b>	<b>0.0526</b>	<b>0.0000</b>	<b>130.6726</b>	<b>130.6726</b>	<b>0.0378</b>	<b>0.0000</b>	<b>131.6184</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1000e-004	0.0153	4.0600e-003	4.0000e-005	8.9000e-004	7.0000e-005	9.6000e-004	2.6000e-004	7.0000e-005	3.3000e-004	0.0000	3.5357	3.5357	2.7000e-004	0.0000	3.5425
Worker	6.4200e-003	4.7500e-003	0.0466	1.4000e-004	0.0140	1.0000e-004	0.0141	3.7100e-003	9.0000e-005	3.8000e-003	0.0000	12.6273	12.6273	3.8000e-004	0.0000	12.6368
<b>Total</b>	<b>6.9300e-003</b>	<b>0.0200</b>	<b>0.0507</b>	<b>1.8000e-004</b>	<b>0.0149</b>	<b>1.7000e-004</b>	<b>0.0150</b>	<b>3.9700e-003</b>	<b>1.6000e-004</b>	<b>4.1300e-003</b>	<b>0.0000</b>	<b>16.1631</b>	<b>16.1631</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>16.1793</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7900e-003	0.0533	0.0485	9.0000e-005		2.8500e-003	2.8500e-003		2.6700e-003	2.6700e-003	0.0000	7.9562	7.9562	2.2000e-003	0.0000	8.0112
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.7900e-003</b>	<b>0.0533</b>	<b>0.0485</b>	<b>9.0000e-005</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>		<b>2.6700e-003</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>7.9562</b>	<b>7.9562</b>	<b>2.2000e-003</b>	<b>0.0000</b>	<b>8.0112</b>



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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3262	0.3262	1.0000e-005	0.0000	0.3264
<b>Total</b>	<b>1.7000e-004</b>	<b>1.2000e-004</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3262</b>	<b>0.3262</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3264</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1500e-003	0.0452	0.0589	9.0000e-005		2.5500e-003	2.5500e-003		2.5500e-003	2.5500e-003	0.0000	7.9562	7.9562	2.2000e-003	0.0000	8.0111
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.1500e-003</b>	<b>0.0452</b>	<b>0.0589</b>	<b>9.0000e-005</b>		<b>2.5500e-003</b>	<b>2.5500e-003</b>		<b>2.5500e-003</b>	<b>2.5500e-003</b>	<b>0.0000</b>	<b>7.9562</b>	<b>7.9562</b>	<b>2.2000e-003</b>	<b>0.0000</b>	<b>8.0111</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3262	0.3262	1.0000e-005	0.0000	0.3264
<b>Total</b>	<b>1.7000e-004</b>	<b>1.2000e-004</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3262</b>	<b>0.3262</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3264</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N



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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0224	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
Unmitigated	0.0240	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.0000e-004
<b>Total</b>	<b>0.0240</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0199					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	3.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	0.0000	6.0000e-005
<b>Total</b>	<b>0.0224</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**



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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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North City Pump Station - San Diego County APCD Air District, Summer

**North City Pump Station**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.50	1000sqft	0.13	5,500.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

North City Pump Station - San Diego County APCD Air District, Summer

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



## North City Pump Station - San Diego County APCD Air District, Summer

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	15.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	6.82	0.29
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00



## North City Pump Station - San Diego County APCD Air District, Summer

tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	26.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,271,875.00	10,400.00

## 2.0 Emissions Summary

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North City Pump Station - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2800e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.8000e-004</b>

## North City Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.70	100.00	41.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.83	45.83	0.00	0.00	46.88

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/21/2019	6/10/2019	5	15	
2	Trenching	Trenching	6/11/2019	8/19/2019	5	50	
3	Building Construction	Building Construction	8/20/2019	7/6/2020	5	230	
4	Paving	Paving	7/7/2020	7/13/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

## North City Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

North City Pump Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.9955	31.5054	16.4368	0.0284		1.6189	1.6189		1.4894	1.4894		2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>2.9955</b>	<b>31.5054</b>	<b>16.4368</b>	<b>0.0284</b>	<b>12.0442</b>	<b>1.6189</b>	<b>13.6631</b>	<b>6.6205</b>	<b>1.4894</b>	<b>8.1098</b>		<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4199	0.0000	5.4199	2.9792	0.0000	2.9792			0.0000			0.0000
Off-Road	0.6972	14.0109	17.6633	0.0284		0.6684	0.6684		0.6684	0.6684	0.0000	2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>0.6972</b>	<b>14.0109</b>	<b>17.6633</b>	<b>0.0284</b>	<b>5.4199</b>	<b>0.6684</b>	<b>6.0882</b>	<b>2.9792</b>	<b>0.6684</b>	<b>3.6476</b>	<b>0.0000</b>	<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0550	0.0384	0.4332	1.2200e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		121.8280	121.8280	3.8900e-003		121.9252
<b>Total</b>	<b>0.0550</b>	<b>0.0384</b>	<b>0.4332</b>	<b>1.2200e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>121.8280</b>	<b>121.8280</b>	<b>3.8900e-003</b>		<b>121.9252</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>		<b>1.5556</b>	<b>1.5556</b>		<b>1.4655</b>	<b>1.4655</b>		<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>



North City Pump Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1021</b>	<b>0.0713</b>	<b>0.8045</b>	<b>2.2700e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>226.2519</b>	<b>226.2519</b>	<b>7.2200e-003</b>		<b>226.4325</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>		<b>1.3279</b>	<b>1.3279</b>		<b>1.3279</b>	<b>1.3279</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1021</b>	<b>0.0713</b>	<b>0.8045</b>	<b>2.2700e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>226.2519</b>	<b>226.2519</b>	<b>7.2200e-003</b>		<b>226.4325</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1351	18.0521	14.6913	0.0230		1.0121	1.0121		0.9470	0.9470		2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>2.1351</b>	<b>18.0521</b>	<b>14.6913</b>	<b>0.0230</b>		<b>1.0121</b>	<b>1.0121</b>		<b>0.9470</b>	<b>0.9470</b>		<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1113</b>	<b>0.3192</b>	<b>0.8685</b>	<b>2.8200e-003</b>	<b>0.2271</b>	<b>3.2500e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0500e-003</b>	<b>0.0636</b>		<b>285.4552</b>	<b>285.4552</b>	<b>0.0118</b>		<b>285.7501</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.2100e-003	0.2480	0.0640	5.5000e-004	0.0135	1.7300e-003	0.0153	3.9000e-003	1.6500e-003	5.5500e-003		59.2033	59.2033	4.5700e-003		59.3176
Worker	0.1021	0.0713	0.8045	2.2700e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		226.2519	226.2519	7.2200e-003		226.4325
<b>Total</b>	<b>0.1113</b>	<b>0.3192</b>	<b>0.8685</b>	<b>2.8200e-003</b>	<b>0.2271</b>	<b>3.2500e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0500e-003</b>	<b>0.0636</b>		<b>285.4552</b>	<b>285.4552</b>	<b>0.0118</b>		<b>285.7501</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9224	16.6027	14.3715	0.0230		0.8838	0.8838		0.8270	0.8270		2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>1.9224</b>	<b>16.6027</b>	<b>14.3715</b>	<b>0.0230</b>		<b>0.8838</b>	<b>0.8838</b>		<b>0.8270</b>	<b>0.8270</b>		<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0954	0.0643	0.7370	2.2000e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		219.1142	219.1142	6.5400e-003		219.2778
<b>Total</b>	<b>0.1029</b>	<b>0.2898</b>	<b>0.7944</b>	<b>2.7500e-003</b>	<b>0.2271</b>	<b>2.6000e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4400e-003</b>	<b>0.0630</b>		<b>277.9223</b>	<b>277.9223</b>	<b>0.0109</b>		<b>278.1943</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4700e-003	0.2255	0.0575	5.5000e-004	0.0135	1.1000e-003	0.0146	3.9000e-003	1.0600e-003	4.9500e-003		58.8080	58.8080	4.3400e-003		58.9165
Worker	0.0954	0.0643	0.7370	2.2000e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		219.1142	219.1142	6.5400e-003		219.2778
<b>Total</b>	<b>0.1029</b>	<b>0.2898</b>	<b>0.7944</b>	<b>2.7500e-003</b>	<b>0.2271</b>	<b>2.6000e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4400e-003</b>	<b>0.0630</b>		<b>277.9223</b>	<b>277.9223</b>	<b>0.0109</b>		<b>278.1943</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	21.3048	19.4068	0.0364		1.1395	1.1395		1.0676	1.0676		3,508.0941	3,508.0941	0.9688		3,532.3136
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.3142</b>	<b>21.3048</b>	<b>19.4068</b>	<b>0.0364</b>		<b>1.1395</b>	<b>1.1395</b>		<b>1.0676</b>	<b>1.0676</b>		<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3136</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0941	3,508.0941	0.9688		3,532.3135
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3135</b>

North City Pump Station - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0661	0.0445	0.5102	1.5200e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		151.6945	151.6945	4.5300e-003		151.8077
<b>Total</b>	<b>0.0661</b>	<b>0.0445</b>	<b>0.5102</b>	<b>1.5200e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>151.6945</b>	<b>151.6945</b>	<b>4.5300e-003</b>		<b>151.8077</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



North City Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

North City Pump Station - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

North City Pump Station - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

North City Pump Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Unmitigated	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1177					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>		<b>1.2800e-003</b>

North City Pump Station - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>		<b>6.8000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

North City Pump Station - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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North City Pump Station - San Diego County APCD Air District, Winter

**North City Pump Station**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.50	1000sqft	0.13	5,500.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

North City Pump Station - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.





## North City Pump Station - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	15.00
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	6.82	0.29
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00

## North City Pump Station - San Diego County APCD Air District, Winter

tblTripsAndVMT	WorkerTripNumber	25.00	26.00
tblTripsAndVMT	WorkerTripNumber	2.00	26.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	1,271,875.00	10,400.00

## 2.0 Emissions Summary

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North City Pump Station - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.2800e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>6.8000e-004</b>

## North City Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.70	100.00	41.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.83	45.83	0.00	0.00	46.88

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/21/2019	6/10/2019	5	15	
2	Trenching	Trenching	6/11/2019	8/19/2019	5	50	
3	Building Construction	Building Construction	8/20/2019	7/6/2020	5	230	
4	Paving	Paving	7/7/2020	7/13/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## North City Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Excavators	2	8.00	158	0.38
Trenching	Off-Highway Trucks	1	8.00	402	0.38
Trenching	Rollers	2	8.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching	Welders	2	8.00	46	0.45
Building Construction	Aerial Lifts	2	8.00	63	0.31
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Off-Highway Trucks	1	8.00	402	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37

**Trips and VMT**

North City Pump Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	5	14.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	10	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.9955	31.5054	16.4368	0.0284		1.6189	1.6189		1.4894	1.4894		2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>2.9955</b>	<b>31.5054</b>	<b>16.4368</b>	<b>0.0284</b>	<b>12.0442</b>	<b>1.6189</b>	<b>13.6631</b>	<b>6.6205</b>	<b>1.4894</b>	<b>8.1098</b>		<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>



North City Pump Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.4199	0.0000	5.4199	2.9792	0.0000	2.9792			0.0000			0.0000
Off-Road	0.6972	14.0109	17.6633	0.0284		0.6684	0.6684		0.6684	0.6684	0.0000	2,817.0663	2,817.0663	0.8913		2,839.3485
<b>Total</b>	<b>0.6972</b>	<b>14.0109</b>	<b>17.6633</b>	<b>0.0284</b>	<b>5.4199</b>	<b>0.6684</b>	<b>6.0882</b>	<b>2.9792</b>	<b>0.6684</b>	<b>3.6476</b>	<b>0.0000</b>	<b>2,817.0663</b>	<b>2,817.0663</b>	<b>0.8913</b>		<b>2,839.3485</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0622	0.0431	0.4094	1.1500e-003	0.1150	8.2000e-004	0.1158	0.0305	7.6000e-004	0.0313		114.3679	114.3679	3.6900e-003		114.4602
<b>Total</b>	<b>0.0622</b>	<b>0.0431</b>	<b>0.4094</b>	<b>1.1500e-003</b>	<b>0.1150</b>	<b>8.2000e-004</b>	<b>0.1158</b>	<b>0.0305</b>	<b>7.6000e-004</b>	<b>0.0313</b>		<b>114.3679</b>	<b>114.3679</b>	<b>3.6900e-003</b>		<b>114.4602</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.3824	28.5469	26.2597	0.0464		1.5556	1.5556		1.4655	1.4655		4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>3.3824</b>	<b>28.5469</b>	<b>26.2597</b>	<b>0.0464</b>		<b>1.5556</b>	<b>1.5556</b>		<b>1.4655</b>	<b>1.4655</b>		<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1155</b>	<b>0.0800</b>	<b>0.7602</b>	<b>2.1300e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>212.3976</b>	<b>212.3976</b>	<b>6.8500e-003</b>		<b>212.5689</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1949	23.8092	30.3451	0.0464		1.3279	1.3279		1.3279	1.3279	0.0000	4,472.0551	4,472.0551	1.2072		4,502.2348
<b>Total</b>	<b>1.1949</b>	<b>23.8092</b>	<b>30.3451</b>	<b>0.0464</b>		<b>1.3279</b>	<b>1.3279</b>		<b>1.3279</b>	<b>1.3279</b>	<b>0.0000</b>	<b>4,472.0551</b>	<b>4,472.0551</b>	<b>1.2072</b>		<b>4,502.2348</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1155</b>	<b>0.0800</b>	<b>0.7602</b>	<b>2.1300e-003</b>	<b>0.2136</b>	<b>1.5200e-003</b>	<b>0.2151</b>	<b>0.0567</b>	<b>1.4000e-003</b>	<b>0.0581</b>		<b>212.3976</b>	<b>212.3976</b>	<b>6.8500e-003</b>		<b>212.5689</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1351	18.0521	14.6913	0.0230		1.0121	1.0121		0.9470	0.9470		2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>2.1351</b>	<b>18.0521</b>	<b>14.6913</b>	<b>0.0230</b>		<b>1.0121</b>	<b>1.0121</b>		<b>0.9470</b>	<b>0.9470</b>		<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1251</b>	<b>0.3282</b>	<b>0.8312</b>	<b>2.6700e-003</b>	<b>0.2271</b>	<b>3.2800e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0800e-003</b>	<b>0.0636</b>		<b>270.0976</b>	<b>270.0976</b>	<b>0.0117</b>		<b>270.3905</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,188.4997	2,188.4997	0.6305		2,204.2621
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,188.4997</b>	<b>2,188.4997</b>	<b>0.6305</b>		<b>2,204.2621</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.6000e-003	0.2482	0.0710	5.4000e-004	0.0135	1.7600e-003	0.0153	3.9000e-003	1.6800e-003	5.5800e-003		57.7001	57.7001	4.8600e-003		57.8216
Worker	0.1155	0.0800	0.7602	2.1300e-003	0.2136	1.5200e-003	0.2151	0.0567	1.4000e-003	0.0581		212.3976	212.3976	6.8500e-003		212.5689
<b>Total</b>	<b>0.1251</b>	<b>0.3282</b>	<b>0.8312</b>	<b>2.6700e-003</b>	<b>0.2271</b>	<b>3.2800e-003</b>	<b>0.2304</b>	<b>0.0606</b>	<b>3.0800e-003</b>	<b>0.0636</b>		<b>270.0976</b>	<b>270.0976</b>	<b>0.0117</b>		<b>270.3905</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9224	16.6027	14.3715	0.0230		0.8838	0.8838		0.8270	0.8270		2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>1.9224</b>	<b>16.6027</b>	<b>14.3715</b>	<b>0.0230</b>		<b>0.8838</b>	<b>0.8838</b>		<b>0.8270</b>	<b>0.8270</b>		<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.1081	0.0722	0.6948	2.0600e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		205.6943	205.6943	6.1900e-003		205.8491
<b>Total</b>	<b>0.1159</b>	<b>0.2975</b>	<b>0.7586</b>	<b>2.5900e-003</b>	<b>0.2271</b>	<b>2.6200e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4600e-003</b>	<b>0.0630</b>		<b>262.9868</b>	<b>262.9868</b>	<b>0.0108</b>		<b>263.2568</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6518	12.9332	15.2636	0.0230		0.7857	0.7857		0.7857	0.7857	0.0000	2,149.8814	2,149.8814	0.6224		2,165.4425
<b>Total</b>	<b>0.6518</b>	<b>12.9332</b>	<b>15.2636</b>	<b>0.0230</b>		<b>0.7857</b>	<b>0.7857</b>		<b>0.7857</b>	<b>0.7857</b>	<b>0.0000</b>	<b>2,149.8814</b>	<b>2,149.8814</b>	<b>0.6224</b>		<b>2,165.4425</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.8300e-003	0.2253	0.0638	5.3000e-004	0.0135	1.1200e-003	0.0147	3.9000e-003	1.0800e-003	4.9700e-003		57.2924	57.2924	4.6100e-003		57.4077
Worker	0.1081	0.0722	0.6948	2.0600e-003	0.2136	1.5000e-003	0.2151	0.0567	1.3800e-003	0.0580		205.6943	205.6943	6.1900e-003		205.8491
<b>Total</b>	<b>0.1159</b>	<b>0.2975</b>	<b>0.7586</b>	<b>2.5900e-003</b>	<b>0.2271</b>	<b>2.6200e-003</b>	<b>0.2297</b>	<b>0.0606</b>	<b>2.4600e-003</b>	<b>0.0630</b>		<b>262.9868</b>	<b>262.9868</b>	<b>0.0108</b>		<b>263.2568</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3142	21.3048	19.4068	0.0364		1.1395	1.1395		1.0676	1.0676		3,508.0941	3,508.0941	0.9688		3,532.3136
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.3142</b>	<b>21.3048</b>	<b>19.4068</b>	<b>0.0364</b>		<b>1.1395</b>	<b>1.1395</b>		<b>1.0676</b>	<b>1.0676</b>		<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3136</b>



North City Pump Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8598	18.0957	23.5463	0.0364		1.0184	1.0184		1.0184	1.0184	0.0000	3,508.0941	3,508.0941	0.9688		3,532.3135
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8598</b>	<b>18.0957</b>	<b>23.5463</b>	<b>0.0364</b>		<b>1.0184</b>	<b>1.0184</b>		<b>1.0184</b>	<b>1.0184</b>	<b>0.0000</b>	<b>3,508.0941</b>	<b>3,508.0941</b>	<b>0.9688</b>		<b>3,532.3135</b>

North City Pump Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
<b>Total</b>	<b>0.0748</b>	<b>0.0500</b>	<b>0.4810</b>	<b>1.4300e-003</b>	<b>0.1479</b>	<b>1.0400e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.6000e-004</b>	<b>0.0402</b>		<b>142.4038</b>	<b>142.4038</b>	<b>4.2900e-003</b>		<b>142.5109</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

North City Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

North City Pump Station - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	

North City Pump Station - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

North City Pump Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1229	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
Unmitigated	0.1317	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1177					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
<b>Total</b>	<b>0.1317</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2000e-003</b>	<b>1.2000e-003</b>	<b>0.0000</b>		<b>1.2800e-003</b>

North City Pump Station - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0140					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1089					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	3.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.5000e-004	6.5000e-004	0.0000		6.8000e-004
<b>Total</b>	<b>0.1229</b>	<b>0.0000</b>	<b>3.3000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.5000e-004</b>	<b>6.5000e-004</b>	<b>0.0000</b>		<b>6.8000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

North City Pump Station - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Renewable Energy Facility - San Diego County APCD Air District, Annual

**Renewable Energy Facility**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.98	1000sqft	0.39	16,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

## Renewable Energy Facility - San Diego County APCD Air District, Annual

Demolition - See Section 7.2.1 for construction details.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - No solid waste generated.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - Reclaimed water use based on Initial Study DEP No. 96-0071.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Renewable Energy Facility - San Diego County APCD Air District, Annual

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00

## Renewable Energy Facility - San Diego County APCD Air District, Annual

tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	3.10
tblLandUse	BuildingSpaceSquareFeet	16,980.00	16,975.00
tblLandUse	LandUseSquareFeet	16,980.00	16,975.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	21.06	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	7.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,926,625.00	36,500.00
tblWater	OutdoorWaterUseRate	0.00	29,565,000.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2020	8-31-2020	0.4558	0.2896
2	9-1-2020	11-30-2020	0.4510	0.2866
3	12-1-2020	2-28-2021	0.4174	0.2825
4	3-1-2021	5-31-2021	0.3917	0.2733
5	6-1-2021	8-31-2021	0.0126	0.0083
		Highest	0.4558	0.2896

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0663	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0116	107.5013	107.5129	5.5200e-003	9.2000e-004	107.9259
<b>Total</b>	<b>0.0663</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>	<b>107.5016</b>	<b>107.5132</b>	<b>5.5200e-003</b>	<b>9.2000e-004</b>	<b>107.9262</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0614	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0116	20.4457	20.4573	2.0100e-003	2.0000e-004	20.5667
<b>Total</b>	<b>0.0614</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0116</b>	<b>20.4459</b>	<b>20.4575</b>	<b>2.0100e-003</b>	<b>2.0000e-004</b>	<b>20.5669</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.48	0.00	43.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80.98	80.97	63.59	78.26	80.94

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	3/27/2020	5	10	
3	Building Construction	Building Construction	3/30/2020	5/21/2021	5	300	
4	Paving	Paving	5/24/2021	6/4/2021	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 3.1**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

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**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4900e-003	0.0000	1.4900e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0942	0.0619	1.0000e-004		5.1000e-003	5.1000e-003		4.7700e-003	4.7700e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>9.5800e-003</b>	<b>0.0942</b>	<b>0.0619</b>	<b>1.0000e-004</b>	<b>1.4900e-003</b>	<b>5.1000e-003</b>	<b>6.5900e-003</b>	<b>2.3000e-004</b>	<b>4.7700e-003</b>	<b>5.0000e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	1.9900e-003	4.6000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5399	0.5399	5.0000e-005	0.0000	0.5411
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>2.4000e-004</b>	<b>2.1300e-003</b>	<b>1.8000e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>1.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.9023</b>	<b>0.9023</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.9038</b>

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**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.7000e-004	0.0000	6.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4300e-003	0.0518	0.0654	1.0000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>2.4300e-003</b>	<b>0.0518</b>	<b>0.0654</b>	<b>1.0000e-004</b>	<b>6.7000e-004</b>	<b>2.9800e-003</b>	<b>3.6500e-003</b>	<b>1.0000e-004</b>	<b>2.9800e-003</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	1.9900e-003	4.6000e-004	1.0000e-005	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.5399	0.5399	5.0000e-005	0.0000	0.5411
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>2.4000e-004</b>	<b>2.1300e-003</b>	<b>1.8000e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>1.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.9023</b>	<b>0.9023</b>	<b>6.0000e-005</b>	<b>0.0000</b>	<b>0.9038</b>

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**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0257	0.0000	0.0257	0.0134	0.0000	0.0134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5800e-003	0.0942	0.0619	1.0000e-004		5.1000e-003	5.1000e-003		4.7700e-003	4.7700e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>9.5800e-003</b>	<b>0.0942</b>	<b>0.0619</b>	<b>1.0000e-004</b>	<b>0.0257</b>	<b>5.1000e-003</b>	<b>0.0308</b>	<b>0.0134</b>	<b>4.7700e-003</b>	<b>0.0182</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3624</b>	<b>0.3624</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3627</b>

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**3.3 Grading - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0116	0.0000	0.0116	6.0400e-003	0.0000	6.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4300e-003	0.0518	0.0654	1.0000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	9.1696	9.1696	2.2700e-003	0.0000	9.2262
<b>Total</b>	<b>2.4300e-003</b>	<b>0.0518</b>	<b>0.0654</b>	<b>1.0000e-004</b>	<b>0.0116</b>	<b>2.9800e-003</b>	<b>0.0146</b>	<b>6.0400e-003</b>	<b>2.9800e-003</b>	<b>9.0200e-003</b>	<b>0.0000</b>	<b>9.1696</b>	<b>9.1696</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>9.2262</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.3400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3624	0.3624	1.0000e-005	0.0000	0.3627
<b>Total</b>	<b>1.8000e-004</b>	<b>1.4000e-004</b>	<b>1.3400e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3624</b>	<b>0.3624</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3627</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1155	1.2136	0.8990	1.5000e-003		0.0678	0.0678		0.0624	0.0624	0.0000	131.4607	131.4607	0.0425	0.0000	132.5236
<b>Total</b>	<b>0.1155</b>	<b>1.2136</b>	<b>0.8990</b>	<b>1.5000e-003</b>		<b>0.0678</b>	<b>0.0678</b>		<b>0.0624</b>	<b>0.0624</b>	<b>0.0000</b>	<b>131.4607</b>	<b>131.4607</b>	<b>0.0425</b>	<b>0.0000</b>	<b>132.5236</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0454	0.0121	1.1000e-004	2.6400e-003	2.2000e-004	2.8600e-003	7.6000e-004	2.1000e-004	9.7000e-004	0.0000	10.5017	10.5017	8.0000e-004	0.0000	10.5218
Worker	2.9300e-003	2.1700e-003	0.0213	6.0000e-005	6.3800e-003	5.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7400e-003	0.0000	5.7700	5.7700	1.7000e-004	0.0000	5.7743
<b>Total</b>	<b>4.4500e-003</b>	<b>0.0475</b>	<b>0.0334</b>	<b>1.7000e-004</b>	<b>9.0200e-003</b>	<b>2.7000e-004</b>	<b>9.2900e-003</b>	<b>2.4600e-003</b>	<b>2.5000e-004</b>	<b>2.7100e-003</b>	<b>0.0000</b>	<b>16.2717</b>	<b>16.2717</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>16.2962</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0367	0.7891	1.0029	1.5000e-003		0.0465	0.0465		0.0465	0.0465	0.0000	131.4606	131.4606	0.0425	0.0000	132.5235
<b>Total</b>	<b>0.0367</b>	<b>0.7891</b>	<b>1.0029</b>	<b>1.5000e-003</b>		<b>0.0465</b>	<b>0.0465</b>		<b>0.0465</b>	<b>0.0465</b>	<b>0.0000</b>	<b>131.4606</b>	<b>131.4606</b>	<b>0.0425</b>	<b>0.0000</b>	<b>132.5235</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5200e-003	0.0454	0.0121	1.1000e-004	2.6400e-003	2.2000e-004	2.8600e-003	7.6000e-004	2.1000e-004	9.7000e-004	0.0000	10.5017	10.5017	8.0000e-004	0.0000	10.5218
Worker	2.9300e-003	2.1700e-003	0.0213	6.0000e-005	6.3800e-003	5.0000e-005	6.4300e-003	1.7000e-003	4.0000e-005	1.7400e-003	0.0000	5.7700	5.7700	1.7000e-004	0.0000	5.7743
<b>Total</b>	<b>4.4500e-003</b>	<b>0.0475</b>	<b>0.0334</b>	<b>1.7000e-004</b>	<b>9.0200e-003</b>	<b>2.7000e-004</b>	<b>9.2900e-003</b>	<b>2.4600e-003</b>	<b>2.5000e-004</b>	<b>2.7100e-003</b>	<b>0.0000</b>	<b>16.2717</b>	<b>16.2717</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>16.2962</b>

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**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0528	0.5555	0.4464	7.6000e-004		0.0297	0.0297		0.0273	0.0273	0.0000	66.7310	66.7310	0.0216	0.0000	67.2706
<b>Total</b>	<b>0.0528</b>	<b>0.5555</b>	<b>0.4464</b>	<b>7.6000e-004</b>		<b>0.0297</b>	<b>0.0297</b>		<b>0.0273</b>	<b>0.0273</b>	<b>0.0000</b>	<b>66.7310</b>	<b>66.7310</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.2706</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2000e-004	0.0208	5.5400e-003	5.0000e-005	1.3400e-003	4.0000e-005	1.3800e-003	3.9000e-004	4.0000e-005	4.3000e-004	0.0000	5.2811	5.2811	3.9000e-004	0.0000	5.2909
Worker	1.4000e-003	1.0000e-003	0.0101	3.0000e-005	3.2400e-003	2.0000e-005	3.2600e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.8301	2.8301	8.0000e-005	0.0000	2.8321
<b>Total</b>	<b>2.0200e-003</b>	<b>0.0218</b>	<b>0.0156</b>	<b>8.0000e-005</b>	<b>4.5800e-003</b>	<b>6.0000e-005</b>	<b>4.6400e-003</b>	<b>1.2500e-003</b>	<b>6.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>8.1112</b>	<b>8.1112</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>8.1230</b>



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**3.4 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0186	0.4005	0.5090	7.6000e-004		0.0236	0.0236		0.0236	0.0236	0.0000	66.7309	66.7309	0.0216	0.0000	67.2705
<b>Total</b>	<b>0.0186</b>	<b>0.4005</b>	<b>0.5090</b>	<b>7.6000e-004</b>		<b>0.0236</b>	<b>0.0236</b>		<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>66.7309</b>	<b>66.7309</b>	<b>0.0216</b>	<b>0.0000</b>	<b>67.2705</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2000e-004	0.0208	5.5400e-003	5.0000e-005	1.3400e-003	4.0000e-005	1.3800e-003	3.9000e-004	4.0000e-005	4.3000e-004	0.0000	5.2811	5.2811	3.9000e-004	0.0000	5.2909
Worker	1.4000e-003	1.0000e-003	0.0101	3.0000e-005	3.2400e-003	2.0000e-005	3.2600e-003	8.6000e-004	2.0000e-005	8.8000e-004	0.0000	2.8301	2.8301	8.0000e-005	0.0000	2.8321
<b>Total</b>	<b>2.0200e-003</b>	<b>0.0218</b>	<b>0.0156</b>	<b>8.0000e-005</b>	<b>4.5800e-003</b>	<b>6.0000e-005</b>	<b>4.6400e-003</b>	<b>1.2500e-003</b>	<b>6.0000e-005</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>8.1112</b>	<b>8.1112</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>8.1230</b>

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**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2900e-003	0.0394	0.0414	7.0000e-005		2.0600e-003	2.0600e-003		1.9200e-003	1.9200e-003	0.0000	5.4981	5.4981	1.5800e-003	0.0000	5.5375
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>4.2900e-003</b>	<b>0.0394</b>	<b>0.0414</b>	<b>7.0000e-005</b>		<b>2.0600e-003</b>	<b>2.0600e-003</b>		<b>1.9200e-003</b>	<b>1.9200e-003</b>	<b>0.0000</b>	<b>5.4981</b>	<b>5.4981</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>5.5375</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
<b>Total</b>	<b>3.1000e-004</b>	<b>2.2000e-004</b>	<b>2.2500e-003</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6305</b>	<b>0.6305</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6309</b>

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**3.5 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2800e-003	0.0272	0.0394	7.0000e-005		1.6600e-003	1.6600e-003		1.6600e-003	1.6600e-003	0.0000	5.4981	5.4981	1.5800e-003	0.0000	5.5375
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.2800e-003</b>	<b>0.0272</b>	<b>0.0394</b>	<b>7.0000e-005</b>		<b>1.6600e-003</b>	<b>1.6600e-003</b>		<b>1.6600e-003</b>	<b>1.6600e-003</b>	<b>0.0000</b>	<b>5.4981</b>	<b>5.4981</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>5.5375</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1000e-004	2.2000e-004	2.2500e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.3000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6305	0.6305	2.0000e-005	0.0000	0.6309
<b>Total</b>	<b>3.1000e-004</b>	<b>2.2000e-004</b>	<b>2.2500e-003</b>	<b>1.0000e-005</b>	<b>7.2000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6305</b>	<b>0.6305</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6309</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122





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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0614	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
Unmitigated	0.0663	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004



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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0663					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.0000e-004	3.0000e-004	0.0000	0.0000	3.2000e-004
<b>Total</b>	<b>0.0663</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.2000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	9.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6000e-004	1.6000e-004	0.0000	0.0000	1.7000e-004
<b>Total</b>	<b>0.0614</b>	<b>0.0000</b>	<b>9.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.7000e-004</b>

**7.0 Water Detail**

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### 7.1 Mitigation Measures Water

#### Use Reclaimed Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.4573	2.0100e-003	2.0000e-004	20.5667
Unmitigated	107.5129	5.5200e-003	9.2000e-004	107.9259

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0365 / 29.565	107.5129	5.5200e-003	9.2000e-004	107.9259
<b>Total</b>		<b>107.5129</b>	<b>5.5200e-003</b>	<b>9.2000e-004</b>	<b>107.9259</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0365 / 5.58834	20.4573	2.0100e-003	2.0000e-004	20.5667
<b>Total</b>		<b>20.4573</b>	<b>2.0100e-003</b>	<b>2.0000e-004</b>	<b>20.5667</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Renewable Energy Facility - San Diego County APCD Air District, Summer

**Renewable Energy Facility**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.98	1000sqft	0.39	16,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Renewable Energy Facility - San Diego County APCD Air District, Summer

Demolition - See Section 7.2.1 for construction details.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - No solid waste generated.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - Reclaimed water use based on Initial Study DEP No. 96-0071.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Renewable Energy Facility - San Diego County APCD Air District, Summer

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00



## Renewable Energy Facility - San Diego County APCD Air District, Summer

tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	3.10
tblLandUse	BuildingSpaceSquareFeet	16,980.00	16,975.00
tblLandUse	LandUseSquareFeet	16,980.00	16,975.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	21.06	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	7.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,926,625.00	36,500.00
tblWater	OutdoorWaterUseRate	0.00	29,565,000.00

## 2.0 Emissions Summary

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Renewable Energy Facility - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.9600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1100e-003</b>

## Renewable Energy Facility - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.50	50.00	41.95	0.00	0.00	100.00	100.00	0.00	100.00	100.00	0.00	46.24	46.24	100.00	0.00	46.72

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	3/27/2020	5	10	
3	Building Construction	Building Construction	3/30/2020	5/21/2021	5	300	
4	Paving	Paving	5/24/2021	6/4/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Renewable Energy Facility - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2990	0.0000	0.2990	0.0453	0.0000	0.0453			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>0.2990</b>	<b>1.0194</b>	<b>1.3184</b>	<b>0.0453</b>	<b>0.9537</b>	<b>0.9990</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3906	0.0887	1.1000e-003	0.0245	1.2500e-003	0.0257	6.7000e-003	1.1900e-003	7.9000e-003		119.8857	119.8857	0.0106		120.1497
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0478</b>	<b>0.4153</b>	<b>0.3721</b>	<b>1.9500e-003</b>	<b>0.1066</b>	<b>1.8300e-003</b>	<b>0.1084</b>	<b>0.0285</b>	<b>1.7200e-003</b>	<b>0.0302</b>		<b>204.1604</b>	<b>204.1604</b>	<b>0.0131</b>		<b>204.4874</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1346	0.0000	0.1346	0.0204	0.0000	0.0204			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>0.1346</b>	<b>0.5966</b>	<b>0.7312</b>	<b>0.0204</b>	<b>0.5966</b>	<b>0.6170</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0111	0.3906	0.0887	1.1000e-003	0.0245	1.2500e-003	0.0257	6.7000e-003	1.1900e-003	7.9000e-003		119.8857	119.8857	0.0106		120.1497
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0478</b>	<b>0.4153</b>	<b>0.3721</b>	<b>1.9500e-003</b>	<b>0.1066</b>	<b>1.8300e-003</b>	<b>0.1084</b>	<b>0.0285</b>	<b>1.7200e-003</b>	<b>0.0302</b>		<b>204.1604</b>	<b>204.1604</b>	<b>0.0131</b>		<b>204.4874</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.1464	0.0000	5.1464	2.6837	0.0000	2.6837			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>5.1464</b>	<b>1.0194</b>	<b>6.1658</b>	<b>2.6837</b>	<b>0.9537</b>	<b>3.6374</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0367</b>	<b>0.0247</b>	<b>0.2835</b>	<b>8.5000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>84.2747</b>	<b>84.2747</b>	<b>2.5200e-003</b>		<b>84.3376</b>



Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.3 Grading - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3159	0.0000	2.3159	1.2077	0.0000	1.2077			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>2.3159</b>	<b>0.5966</b>	<b>2.9125</b>	<b>1.2077</b>	<b>0.5966</b>	<b>1.8043</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
<b>Total</b>	<b>0.0367</b>	<b>0.0247</b>	<b>0.2835</b>	<b>8.5000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>84.2747</b>	<b>84.2747</b>	<b>2.5200e-003</b>		<b>84.3376</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1604	12.1968	9.0353	0.0150		0.6818	0.6818		0.6273	0.6273		1,456.3883	1,456.3883	0.4710		1,468.1640
<b>Total</b>	<b>1.1604</b>	<b>12.1968</b>	<b>9.0353</b>	<b>0.0150</b>		<b>0.6818</b>	<b>0.6818</b>		<b>0.6273</b>	<b>0.6273</b>		<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1640</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0150	0.4510	0.1149	1.1000e-003	0.0271	2.2100e-003	0.0293	7.8000e-003	2.1100e-003	9.9100e-003		117.6160	117.6160	8.6800e-003		117.8330
Worker	0.0294	0.0198	0.2268	6.8000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		67.4198	67.4198	2.0100e-003		67.4701
<b>Total</b>	<b>0.0443</b>	<b>0.4708</b>	<b>0.3417</b>	<b>1.7800e-003</b>	<b>0.0928</b>	<b>2.6700e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5300e-003</b>	<b>0.0278</b>		<b>185.0358</b>	<b>185.0358</b>	<b>0.0107</b>		<b>185.3030</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.3883	1,456.3883	0.4710		1,468.1639
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1639</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0150	0.4510	0.1149	1.1000e-003	0.0271	2.2100e-003	0.0293	7.8000e-003	2.1100e-003	9.9100e-003		117.6160	117.6160	8.6800e-003		117.8330
Worker	0.0294	0.0198	0.2268	6.8000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		67.4198	67.4198	2.0100e-003		67.4701
<b>Total</b>	<b>0.0443</b>	<b>0.4708</b>	<b>0.3417</b>	<b>1.7800e-003</b>	<b>0.0928</b>	<b>2.6700e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5300e-003</b>	<b>0.0278</b>		<b>185.0358</b>	<b>185.0358</b>	<b>0.0107</b>		<b>185.3030</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0461	10.9992	8.8390	0.0150		0.5878	0.5878		0.5408	0.5408		1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>1.0461</b>	<b>10.9992</b>	<b>8.8390</b>	<b>0.0150</b>		<b>0.5878</b>	<b>0.5878</b>		<b>0.5408</b>	<b>0.5408</b>		<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.4073	0.1038	1.0800e-003	0.0271	8.6000e-004	0.0279	7.8000e-003	8.2000e-004	8.6100e-003		116.5408	116.5408	8.3300e-003		116.7490
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
<b>Total</b>	<b>0.0398</b>	<b>0.4253</b>	<b>0.3160</b>	<b>1.7300e-003</b>	<b>0.0928</b>	<b>1.3100e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2400e-003</b>	<b>0.0265</b>		<b>181.6961</b>	<b>181.6961</b>	<b>0.0102</b>		<b>181.9507</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0121	0.4073	0.1038	1.0800e-003	0.0271	8.6000e-004	0.0279	7.8000e-003	8.2000e-004	8.6100e-003		116.5408	116.5408	8.3300e-003		116.7490
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
<b>Total</b>	<b>0.0398</b>	<b>0.4253</b>	<b>0.3160</b>	<b>1.7300e-003</b>	<b>0.0928</b>	<b>1.3100e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2400e-003</b>	<b>0.0265</b>		<b>181.6961</b>	<b>181.6961</b>	<b>0.0102</b>		<b>181.9507</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8580	7.8878	8.2789	0.0133		0.4121	0.4121		0.3837	0.3837		1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8580</b>	<b>7.8878</b>	<b>8.2789</b>	<b>0.0133</b>		<b>0.4121</b>	<b>0.4121</b>		<b>0.3837</b>	<b>0.3837</b>		<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0405	0.4774	1.4700e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		146.5994	146.5994	4.1800e-003		146.7040
<b>Total</b>	<b>0.0623</b>	<b>0.0405</b>	<b>0.4774</b>	<b>1.4700e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>146.5994</b>	<b>146.5994</b>	<b>4.1800e-003</b>		<b>146.7040</b>

Renewable Energy Facility - San Diego County APCD Air District, Summer

**3.5 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2559	5.4376	7.8889	0.0133		0.3323	0.3323		0.3323	0.3323	0.0000	1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2559</b>	<b>5.4376</b>	<b>7.8889</b>	<b>0.0133</b>		<b>0.3323</b>	<b>0.3323</b>		<b>0.3323</b>	<b>0.3323</b>	<b>0.0000</b>	<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0405	0.4774	1.4700e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		146.5994	146.5994	4.1800e-003		146.7040
<b>Total</b>	<b>0.0623</b>	<b>0.0405</b>	<b>0.4774</b>	<b>1.4700e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>146.5994</b>	<b>146.5994</b>	<b>4.1800e-003</b>		<b>146.7040</b>

**4.0 Operational Detail - Mobile**

Renewable Energy Facility - San Diego County APCD Air District, Summer

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122



Renewable Energy Facility - San Diego County APCD Air District, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Renewable Energy Facility - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Renewable Energy Facility - San Diego County APCD Air District, Summer

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Unmitigated	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003

Renewable Energy Facility - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6000e-004	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>		<b>3.9600e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3361					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>		<b>2.1100e-003</b>

**7.0 Water Detail**

## Renewable Energy Facility - San Diego County APCD Air District, Summer

**7.1 Mitigation Measures Water**

Use Reclaimed Water

**8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

Renewable Energy Facility - San Diego County APCD Air District, Winter

**Renewable Energy Facility**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	16.98	1000sqft	0.39	16,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2022
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information.

On-road Fugitive Dust - CalEEMod Defaults.

Renewable Energy Facility - San Diego County APCD Air District, Winter

Demolition - See Section 7.2.1 for construction details.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - No solid waste generated.

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - No architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - Reclaimed water use based on Initial Study DEP No. 96-0071.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.

Renewable Energy Facility - San Diego County APCD Air District, Winter

Stationary Sources - User Defined - No stationary sources.

Stationary Sources - Emergency Generators and Fire Pumps EF - No stationary sources.

Stationary Sources - Process Boilers EF - No stationary sources.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	250	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblEnergyUse	LightingElect	2.91	0.00
tblEnergyUse	NT24E	4.27	0.00



## Renewable Energy Facility - San Diego County APCD Air District, Winter

tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.27	0.00
tblEnergyUse	T24NG	4.34	0.00
tblGrading	AcresOfGrading	0.00	3.10
tblLandUse	BuildingSpaceSquareFeet	16,980.00	16,975.00
tblLandUse	LandUseSquareFeet	16,980.00	16,975.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	OperationalYear	2018	2022
tblSolidWaste	SolidWasteGenerationRate	21.06	0.00
tblTripsAndVMT	VendorTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	7.00	8.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	3,926,625.00	36,500.00
tblWater	OutdoorWaterUseRate	0.00	29,565,000.00

## 2.0 Emissions Summary

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Renewable Energy Facility - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>3.9600e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.1100e-003</b>

## Renewable Energy Facility - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	7.50	50.00	41.95	0.00	0.00	100.00	100.00	0.00	100.00	100.00	0.00	46.24	46.24	100.00	0.00	46.72

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/2/2020	3/13/2020	5	10	
2	Grading	Grading	3/16/2020	3/27/2020	5	10	
3	Building Construction	Building Construction	3/30/2020	5/21/2021	5	300	
4	Paving	Paving	5/24/2021	6/4/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Renewable Energy Facility - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.2 Demolition - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2990	0.0000	0.2990	0.0453	0.0000	0.0453			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>0.2990</b>	<b>1.0194</b>	<b>1.3184</b>	<b>0.0453</b>	<b>0.9537</b>	<b>0.9990</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0114	0.3943	0.0945	1.0800e-003	0.0245	1.2700e-003	0.0257	6.7000e-003	1.2200e-003	7.9200e-003		117.8290	117.8290	0.0109		118.1020
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0529</b>	<b>0.4221</b>	<b>0.3618</b>	<b>1.8700e-003</b>	<b>0.1066</b>	<b>1.8500e-003</b>	<b>0.1085</b>	<b>0.0285</b>	<b>1.7500e-003</b>	<b>0.0302</b>		<b>196.9422</b>	<b>196.9422</b>	<b>0.0133</b>		<b>197.2748</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.2 Demolition - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1346	0.0000	0.1346	0.0204	0.0000	0.0204			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>0.1346</b>	<b>0.5966</b>	<b>0.7312</b>	<b>0.0204</b>	<b>0.5966</b>	<b>0.6170</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0114	0.3943	0.0945	1.0800e-003	0.0245	1.2700e-003	0.0257	6.7000e-003	1.2200e-003	7.9200e-003		117.8290	117.8290	0.0109		118.1020
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0529</b>	<b>0.4221</b>	<b>0.3618</b>	<b>1.8700e-003</b>	<b>0.1066</b>	<b>1.8500e-003</b>	<b>0.1085</b>	<b>0.0285</b>	<b>1.7500e-003</b>	<b>0.0302</b>		<b>196.9422</b>	<b>196.9422</b>	<b>0.0133</b>		<b>197.2748</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.1464	0.0000	5.1464	2.6837	0.0000	2.6837			0.0000			0.0000
Off-Road	1.9167	18.8412	12.3776	0.0210		1.0194	1.0194		0.9537	0.9537		2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>1.9167</b>	<b>18.8412</b>	<b>12.3776</b>	<b>0.0210</b>	<b>5.1464</b>	<b>1.0194</b>	<b>6.1658</b>	<b>2.6837</b>	<b>0.9537</b>	<b>3.6374</b>		<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0416</b>	<b>0.0278</b>	<b>0.2673</b>	<b>7.9000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>79.1132</b>	<b>79.1132</b>	<b>2.3800e-003</b>		<b>79.1727</b>



Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.3 Grading - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3159	0.0000	2.3159	1.2077	0.0000	1.2077			0.0000			0.0000
Off-Road	0.4862	10.3690	13.0734	0.0210		0.5966	0.5966		0.5966	0.5966	0.0000	2,021.544 2	2,021.544 2	0.4997		2,034.036 0
<b>Total</b>	<b>0.4862</b>	<b>10.3690</b>	<b>13.0734</b>	<b>0.0210</b>	<b>2.3159</b>	<b>0.5966</b>	<b>2.9125</b>	<b>1.2077</b>	<b>0.5966</b>	<b>1.8043</b>	<b>0.0000</b>	<b>2,021.544 2</b>	<b>2,021.544 2</b>	<b>0.4997</b>		<b>2,034.036 0</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
<b>Total</b>	<b>0.0416</b>	<b>0.0278</b>	<b>0.2673</b>	<b>7.9000e-004</b>	<b>0.0822</b>	<b>5.8000e-004</b>	<b>0.0827</b>	<b>0.0218</b>	<b>5.3000e-004</b>	<b>0.0223</b>		<b>79.1132</b>	<b>79.1132</b>	<b>2.3800e-003</b>		<b>79.1727</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1604	12.1968	9.0353	0.0150		0.6818	0.6818		0.6273	0.6273		1,456.3883	1,456.3883	0.4710		1,468.1640
<b>Total</b>	<b>1.1604</b>	<b>12.1968</b>	<b>9.0353</b>	<b>0.0150</b>		<b>0.6818</b>	<b>0.6818</b>		<b>0.6273</b>	<b>0.6273</b>		<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1640</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0157	0.4507	0.1275	1.0700e-003	0.0271	2.2500e-003	0.0293	7.8000e-003	2.1500e-003	9.9500e-003		114.5849	114.5849	9.2200e-003		114.8154
Worker	0.0333	0.0222	0.2138	6.4000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.2906	63.2906	1.9100e-003		63.3382
<b>Total</b>	<b>0.0489</b>	<b>0.4729</b>	<b>0.3413</b>	<b>1.7100e-003</b>	<b>0.0928</b>	<b>2.7100e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5700e-003</b>	<b>0.0278</b>		<b>177.8755</b>	<b>177.8755</b>	<b>0.0111</b>		<b>178.1536</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.3883	1,456.3883	0.4710		1,468.1639
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.3883</b>	<b>1,456.3883</b>	<b>0.4710</b>		<b>1,468.1639</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0157	0.4507	0.1275	1.0700e-003	0.0271	2.2500e-003	0.0293	7.8000e-003	2.1500e-003	9.9500e-003		114.5849	114.5849	9.2200e-003		114.8154
Worker	0.0333	0.0222	0.2138	6.4000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.2000e-004	0.0179		63.2906	63.2906	1.9100e-003		63.3382
<b>Total</b>	<b>0.0489</b>	<b>0.4729</b>	<b>0.3413</b>	<b>1.7100e-003</b>	<b>0.0928</b>	<b>2.7100e-003</b>	<b>0.0955</b>	<b>0.0252</b>	<b>2.5700e-003</b>	<b>0.0278</b>		<b>177.8755</b>	<b>177.8755</b>	<b>0.0111</b>		<b>178.1536</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0461	10.9992	8.8390	0.0150		0.5878	0.5878		0.5408	0.5408		1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>1.0461</b>	<b>10.9992</b>	<b>8.8390</b>	<b>0.0150</b>		<b>0.5878</b>	<b>0.5878</b>		<b>0.5408</b>	<b>0.5408</b>		<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.4062	0.1156	1.0600e-003	0.0271	8.9000e-004	0.0280	7.8000e-003	8.5000e-004	8.6500e-003		113.5277	113.5277	8.8400e-003		113.7488
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
<b>Total</b>	<b>0.0441</b>	<b>0.4264</b>	<b>0.3150</b>	<b>1.6700e-003</b>	<b>0.0928</b>	<b>1.3400e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2700e-003</b>	<b>0.0265</b>		<b>174.6915</b>	<b>174.6915</b>	<b>0.0106</b>		<b>174.9566</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3690	7.9303	10.0792	0.0150		0.4676	0.4676		0.4676	0.4676	0.0000	1,456.6006	1,456.6006	0.4711		1,468.3779
<b>Total</b>	<b>0.3690</b>	<b>7.9303</b>	<b>10.0792</b>	<b>0.0150</b>		<b>0.4676</b>	<b>0.4676</b>		<b>0.4676</b>	<b>0.4676</b>	<b>0.0000</b>	<b>1,456.6006</b>	<b>1,456.6006</b>	<b>0.4711</b>		<b>1,468.3779</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.4062	0.1156	1.0600e-003	0.0271	8.9000e-004	0.0280	7.8000e-003	8.5000e-004	8.6500e-003		113.5277	113.5277	8.8400e-003		113.7488
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
<b>Total</b>	<b>0.0441</b>	<b>0.4264</b>	<b>0.3150</b>	<b>1.6700e-003</b>	<b>0.0928</b>	<b>1.3400e-003</b>	<b>0.0941</b>	<b>0.0252</b>	<b>1.2700e-003</b>	<b>0.0265</b>		<b>174.6915</b>	<b>174.6915</b>	<b>0.0106</b>		<b>174.9566</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8580	7.8878	8.2789	0.0133		0.4121	0.4121		0.3837	0.3837		1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.8580</b>	<b>7.8878</b>	<b>8.2789</b>	<b>0.0133</b>		<b>0.4121</b>	<b>0.4121</b>		<b>0.3837</b>	<b>0.3837</b>		<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
<b>Total</b>	<b>0.0706</b>	<b>0.0454</b>	<b>0.4488</b>	<b>1.3800e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>137.6186</b>	<b>137.6186</b>	<b>3.9500e-003</b>		<b>137.7174</b>

Renewable Energy Facility - San Diego County APCD Air District, Winter

**3.5 Paving - 2021**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2559	5.4376	7.8889	0.0133		0.3323	0.3323		0.3323	0.3323	0.0000	1,212.1151	1,212.1151	0.3477		1,220.8063
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.2559</b>	<b>5.4376</b>	<b>7.8889</b>	<b>0.0133</b>		<b>0.3323</b>	<b>0.3323</b>		<b>0.3323</b>	<b>0.3323</b>	<b>0.0000</b>	<b>1,212.1151</b>	<b>1,212.1151</b>	<b>0.3477</b>		<b>1,220.8063</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0706	0.0454	0.4488	1.3800e-003	0.1479	1.0200e-003	0.1489	0.0392	9.4000e-004	0.0402		137.6186	137.6186	3.9500e-003		137.7174
<b>Total</b>	<b>0.0706</b>	<b>0.0454</b>	<b>0.4488</b>	<b>1.3800e-003</b>	<b>0.1479</b>	<b>1.0200e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.4000e-004</b>	<b>0.0402</b>		<b>137.6186</b>	<b>137.6186</b>	<b>3.9500e-003</b>		<b>137.7174</b>

**4.0 Operational Detail - Mobile**

---

Renewable Energy Facility - San Diego County APCD Air District, Winter

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122



Renewable Energy Facility - San Diego County APCD Air District, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Renewable Energy Facility - San Diego County APCD Air District, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Renewable Energy Facility - San Diego County APCD Air District, Winter

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3362	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
Unmitigated	0.3634	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003

Renewable Energy Facility - San Diego County APCD Air District, Winter

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6000e-004	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.7200e-003	3.7200e-003	1.0000e-005		3.9600e-003
<b>Total</b>	<b>0.3634</b>	<b>2.0000e-005</b>	<b>1.7400e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>	<b>1.0000e-005</b>		<b>3.9600e-003</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3361					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	1.0100e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.0000e-003	2.0000e-003	0.0000		2.1100e-003
<b>Total</b>	<b>0.3362</b>	<b>1.0000e-005</b>	<b>1.0100e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.0000e-003</b>	<b>2.0000e-003</b>	<b>0.0000</b>		<b>2.1100e-003</b>

**7.0 Water Detail**

Renewable Energy Facility - San Diego County APCD Air District, Winter

**7.1 Mitigation Measures Water**

Use Reclaimed Water

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

Compressor Station Emergency Generator

Emergency Generator Emission Estimates

Operational Equipment - Project Name	OFFROAD Model Category	Engine Tier	Quantity	Engine Rating (hp)	Engine Rating (kW)	Load Factor	Operation (hr/day)	Operation (day/yr)	Emission Factors								Emissions										
									VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2E
									(g/bhp-hr)								(lb/day)										
Emergency Generator	Generator Sets	4	1	3,353	2,500	0.74	1.0	50	0.1399	0.5	2.6	0.0055	0.02	0.02	568.299	0.018	0.008069	0.77	2.74	14.22	0.03	0.11	0.11	3,108.63	0.10	0.04	-
											(ton/year)							(MT/yr)									
											0.02	0.07	0.36	0.00	0.00	0.00	70.50	0.00	0.00	70.86							

Emission Factors

Equipment Type	VOC <sup>1</sup>	NOx <sup>1</sup>	CO <sup>2</sup>	SOx <sup>2</sup>	PM10 <sup>2</sup>	PM2.5 <sup>1</sup>	CO2 <sup>3</sup>	CH4 <sup>3</sup>	N2O <sup>4</sup>
Generator Sets	0.1399	0.5	2.6	0.0055	0.02	0.02	568.299	0.018	0.008069

Notes: <sup>1</sup> EPA Tier 4 for 1200+ hp engines

<sup>2</sup> EPA AP-42, Table 3.4-1, Calculated Value based on Ultra Low Sulfur Diesel

<sup>3</sup> Emission factors from CARB OFFROAD 2011, for generators over 1,000 hp

<sup>4</sup> N2O emission factor based on ratio of CH4 to N2O in diesel fuel from The Climate Registry's 2017 Default Emission Factors

# **APPENDIX C**

## *North City Project Air Modelling Analysis and Health Risk Assessment Report*





**Dudek**

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Encinitas, CA 92024**

**February 2017**

**Prepared by:**



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**San Diego's Pure Water Program –  
North City Project  
Air Quality Analysis and  
Health Risk Assessment Report**

# **San Diego's Pure Water Program – North City Project, Air Quality Analysis and HRA Report**

Prepared for:

**Dudek  
605 Third Street  
Encinitas, CA 92024**

February 2017

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## List of Acronyms and Abbreviations

ADMRT	Air Dispersion and Risk Assessment Tool
AQIA	Air Quality Impact Assessment
CARB	California Air Resources Board
CAS	Chemical Abstracts Service
CEQA	California Environmental Quality Act
CH <sub>4</sub>	Methane
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
DEM	Digital Elevation Model
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	[United States] Environmental Protection Agency
g	Gram
GHG(s)	Greenhouse Gas(es)
GLC	Ground Level Concentration
HARP2	Hotspots Analysis and Reporting Program, Version 2
HI	Hazard Index
HIA	Acute Hazard Index
HIC	Chronic Hazard Index
hr	Hour
HRA	Health Risk Assessment
ICE	Internal Combustion Engine
IPCC	Intergovernmental Panel on Climate Change
°K	Degrees Kelvin
K-12	Kindergarten through 12 <sup>th</sup> Grade
km	Kilometer
lb(s)	Pound(s)
LFG	Landfill Gas
m	Meter
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
m/s	Meters per Second
MT	Metric Ton
MW	Megawatt
NCWRP	North City Water Reclamation Plant
NEPA	National Environmental Policy Act
N <sub>2</sub> O	Nitrous Oxide
NO <sub>x</sub>	Oxides of Nitrogen
NSCR	Non-Selective Catalytic Reduction
OEHHA	Office of Environmental Health Hazard Assessment
PM <sub>2.5</sub>	Fine Particulate Matter (Less Than 2.5 Microns in Size)

PM <sub>10</sub>	Respirable Particulate Matter (Less Than 10 Microns in Size)
PMI	Point of Maximum Impact
SDAPCD	San Diego County Air Pollution Control District
s	Second
SO <sub>x</sub>	Sulfur Oxides
TAC	Toxic Air Contaminant
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound
yr	Year
X/Q	Chi over Q – Average Effluent Concentration Normalized by Source Strength (Concentration/Unit Emission Rate)

# San Diego's Pure Water Program – North City Project, Air Quality Analysis and HRA Report

## 1.0 INTRODUCTION

### 1.1 Pure Water Program North City Project Overview

The City of San Diego (City) is a leader in the potable reuse industry. The City plans to implement a complex water reuse program that addresses both water and wastewater challenges. The City's Pure Water Program is a phased, multi-year program that uses proven technology to produce a safe, reliable, and cost-effective water supply for the City. At full implementation in 2035, the Pure Water Program will provide a third of the City's water supply locally and will reduce the City's ocean wastewater discharges by half.

The first Phase of the City's Pure Water Program is called the North City Project. This project entails the expansion and installation of new power generation capability at the North City Water Reclamation Plant (NCWRP).

### 1.2 Project Description

The proposed project includes the addition of 15.4 megawatts (MW) of new generation capacity combined with 5 MW of existing power generation capacity at the NCWRP. The new power generation at the NCWRP consists of 6.3 MW of new capacity that uses 100% landfill gas (LFG) as fuel and 9.1 MW of new capacity that uses LFG supplemented with natural gas in 2021, and 3.4 MW of new LFG capacity in 2026.

The system includes a total of seven new internal combustion engines (ICEs) and generator units. Each of these are 3.8 MW Caterpillar Model CG260-16 or equivalent ICEs and generator units. All of the ICEs will be downrated in capacity. Three of these units will be dedicated to using 100% LFG and the remainder can operate on mixed gas, i.e., LFG supplemented with natural gas (all engines could run on 100% natural gas). One engine will always be reserved as a backup and will not operate simultaneously with the other engines. Initially, six engines will be installed, with one to be used as a backup. In 2026, the seventh engine will be installed and an existing 5 MW of generation capacity will be taken offline.

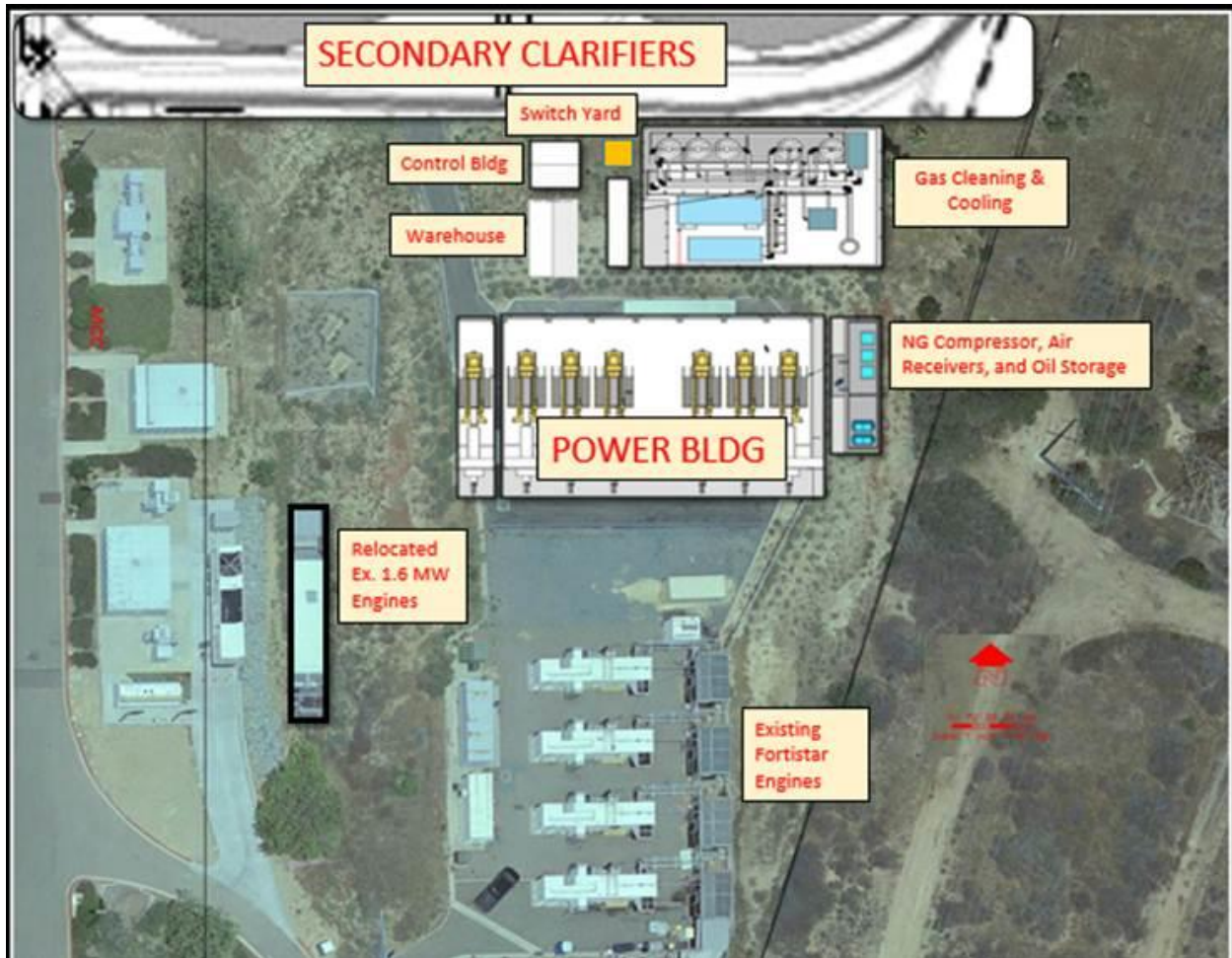
The facility layout includes relocation of the City's existing 1.6 MW engine to a new location on-site near the existing emergency power generation equipment at the NCWRP in order to accommodate the layout of the new power generation facility. Figure 1-1 illustrates a preliminary layout for the new and relocated power generation units at the NCWRP.

The expanded power generation facility covers an area of approximately one half acre and is fully contained within the existing NCWRP property. The new power generation units will receive LFG from the City's Miramar Landfill gas collection system via a new 12-inch diameter gas line that will parallel an existing 10-inch gas line that conveys LFG from the landfill to fuel the existing emergency power generation units at the NCWRP.

A new gas compressor station will be added for the additional gas line described above in order to pressurize and convey the LFG from the landfill to the NCWRP. The new compressor station will

be sited immediately adjacent to an existing gas compressor station located at the landfill and will be powered by electricity from the grid.

**Figure 1-1: Project Plot Plan Showing Source and Building Locations**



### 1.3 Project Location

The proposed project will be completely within the existing NCWRP site, which is located at the northeast corner of the intersection of Miramar Road and Interstate 805 in San Diego, CA. Figure 1-2 shows the facility and its immediate surroundings. The site is located in a generally industrial or undeveloped area.

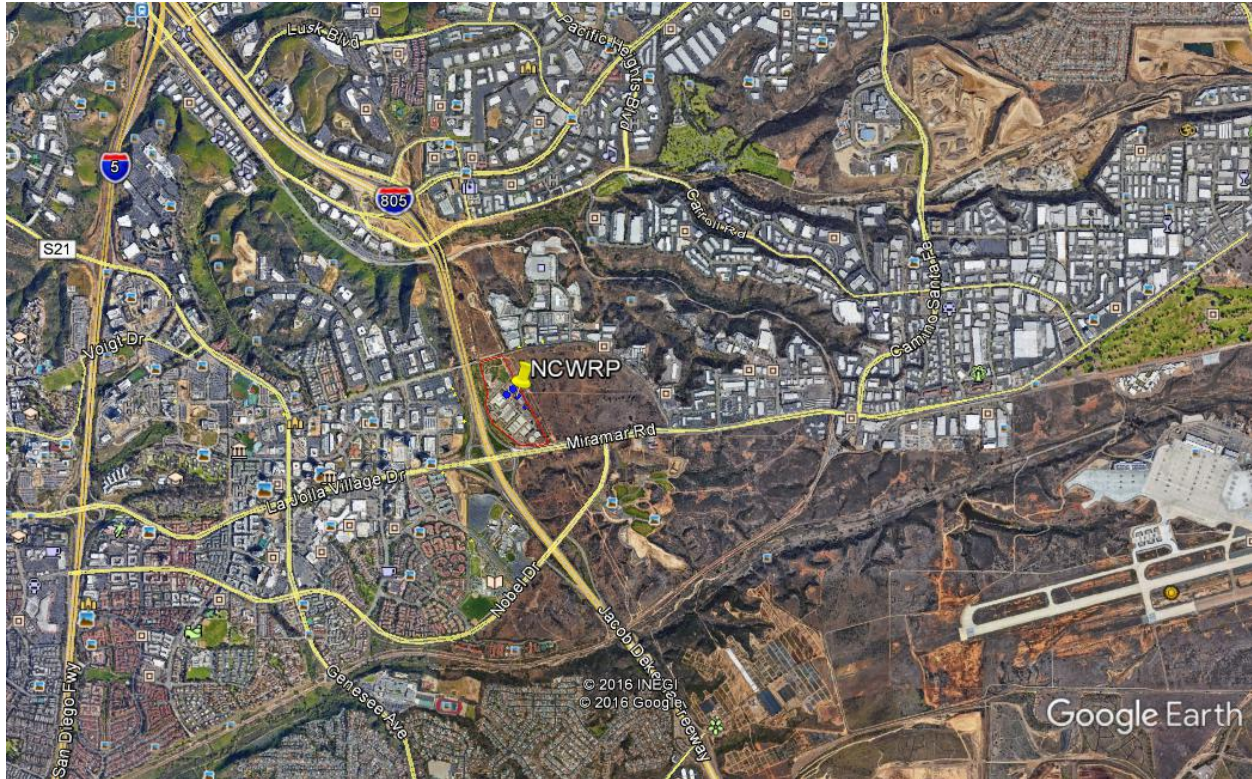
The engines will be placed inside a building located immediately south of the new circular secondary clarifiers and north of the existing emergency power generation facility at the NCWRP. A skid mounted equipment package consisting of a natural gas compressor system, air receivers, and oil storage will be located on the site adjacent to the power generation building. Two additional buildings will be included on the site for control equipment and storage. The facility will also include a gas cleaning and cooling equipment skid and an electrical switch yard.

With respect to air quality and greenhouse gas (GHG) California Environmental Quality Act (CEQA) analyses, the proposed project is within the jurisdiction of the City. It is presumed that the City's requirements related to air quality and GHG impacts under CEQA will also be sufficient



for addressing the project's requirements related to the National Environmental Policy Act (NEPA) for the United States Bureau of Reclamation. For air quality permitting, the proposed project is located within the San Diego County Air Pollution Control District (SDAPCD).

**Figure 1-2: Project Location Map and Immediate Surroundings**



## 1.4 Report

This Air Quality and GHG Technical Report has been prepared by Yorke Engineering, LLC (Yorke) in support of the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) prepared by Dudek for this project. The report discusses the calculation of the emissions of criteria pollutants, toxic air contaminants (TACs), and GHGs due to the operation of the proposed project. It outlines the Health Risk Assessment (HRA) modeling to determine the health impacts due to the TACs. This report addresses the operational emissions calculations and HRA only. Other air quality-related impacts and significance determinations are discussed elsewhere in the Draft EIR/EIS.

## 2.0 OPERATIONAL EMISSION ESTIMATES

To analyze the air quality impacts from this project, the emission calculations and subsequent HRA examine the simultaneous operation of five ICEs.

Although, ultimately, seven new 3.8 MW Caterpillar Model CG260-16 or equivalent ICEs will be installed, one will always remain as a backup. Additionally, the seventh ICE will not be installed until 2026, at which time 5 MWs of existing generation capacity will be taken offline, more than counterbalancing the emission increase associated with the seventh engine. Therefore, in this analysis, five ICEs are examined, representing the initial installation of six ICEs where one is a backup. The seventh ICE is not examined in this analysis as it will replace a larger and older (more polluting) ICE, thus resulting in a decrease in emissions.

The project also includes the relocation of an existing 1.6 MW engine within the half-acre project site. Since no new emissions are associated with this source, it is not included in this analysis.

Note, emissions related to construction activities are addressed elsewhere in this Draft EIR/EIS.

### 2.1 Criteria Pollutant Emissions

All of the ICEs can operate on 100% LFG. Three are also designed to run on a combination of LFG and up to 30% natural gas. It is expected that, initially, the ICEs will run on 100% LFG. An engineering evaluation shows that emissions of NO<sub>x</sub> are slightly higher when utilizing 100% LFG, as opposed to the combination of LFG and natural gas. In addition, more TACs are emitted from the combustion of the LFG, thus this evaluation examined emissions from all five ICEs combusting 100% LFG at full load.

The LFG will undergo a series of cleanups starting at the compressor station where moisture and large contaminants will be removed, followed by a LFG cleaning and conditioning system on-site at the NCWRP. The gas cleaning equipment is designed to supply clean, dry LFG to the new ICEs.

An oxidation catalyst and Non-Selective Catalyst Reduction (NSCR) post-combustion emission controls will be installed on each of the ICEs to reduce emissions of Carbon Monoxide (CO), volatile organic compounds (VOCs), and Nitrogen Oxides (NO<sub>x</sub>).

Based on the expected clean LFG composition, ICE design parameters, and oxidation/NSCR performance, criteria pollutant emissions were estimated. A summary of the criteria pollutant emissions is shown in Table 2-1. Detailed emission calculations are provided in Appendix A.

**Table 2-1: Summary of Operational Criteria Pollutant Emissions**

Pollutant	Combined Emissions for Five ICEs		
	(lb/hr)	(lb/day)	(tons/yr)
NO <sub>x</sub>	5.75	137.9	25.2
CO	4.21	101.1	18.4
VOC	1.04	25.0	4.6
PM <sub>10</sub>	0.58	13.8	2.5
PM <sub>2.5</sub>	0.58	13.8	2.5
SO <sub>x</sub>	0.64	15.3	2.8

## 2.2 TAC Emissions

As noted in Section 2.1, use of 100% LFG as fuel at full load would be also be worst-case for TAC emissions. Therefore, TAC emissions were estimated based on maximum LFG usage per engine and SDAPCD emission factors for LFG-fired engines (SDAPCD 1999). Detailed emission calculations are provided in Appendix A and a summary of the total project's TAC emissions is presented in Table 2-2.

Rather than using emissions-based significance criteria for TACs, an HRA is typically performed to determine the potential for significant impacts. The modeling and risk assessment methodologies are provided in Section 3.0 and the HRA results are provided in Section 4.0. The HRA results demonstrate that the project's TAC emissions are expected to have less than significant impacts.

**Table 2-2: Summary of Operational TAC Emissions**

TAC	Chemical Abstracts Service (CAS) ID#	Total TAC Emissions for All Five ICES (tons/yr)
Methyl Chloroform (1,1,1-Trichloroethane)	71556	4.60E-03
Acrylonitrile	107131	2.42E-02
Benzene	71432	1.09E-02
Carbon Disulfide	75150	3.20E-03
Carbonyl Sulfide	463581	2.09E-03
Chlorobenzene	108907	2.09E-03
Chloroform	67663	2.79E-04
Ethyl Benzene	100414	3.54E-02
Ethylene Dichloride (EDC)	107062	2.92E-03
Formaldehyde	50000	1.88E-01
Hexane	110543	4.09E-02
Hydrochloric Acid	7647010	1.03E+01
Hydrogen Sulfide	7783064	8.75E-02
Methyl Ethyl Ketone (2-Butanone)	78933	3.70E-02
Methyl Isobutyl Ketone (Hexone)	108101	1.35E-02
Methyl Chloride (Chloromethane)	74873	8.79E-02
Perchloroethylene (Tetrachloroethene)	127184	4.47E-02
Toluene	108883	2.62E-01
Trichloroethylene	79016	2.67E-02
Vinyl Chloride	75014	3.31E-02
Vinylidene Chloride	75354	1.39E-03
Xylenes (Mixed)	1330207	9.29E-02

### 2.3 GHG Emissions

Project GHG emissions were estimated for two cases, specifically:

1. Five ICEs using 100% LFG; and
2. Two ICEs using 100% LFG and three ICEs using 70% LFG and 30% natural gas.

Emissions were based on maximum landfill or natural gas usage per engine and the Intergovernmental Panel on Climate Change (IPCC) emission factors for landfill and natural gas combustion (IPCC 2006). Detailed emission calculations for both cases are provided in Appendix A.

The LFG to be used in the project is generated at the nearby Miramar Landfill and is currently being emitted from the surface of the landfill or flared. This LFG is a biogenic source of GHGs, i.e., GHG emissions related to nature’s carbon cycle from the biological decomposition of waste in the landfill. Biogenic GHG emissions associated with the LFG already occur and can be considered baseline conditions, and are not an impact generated by the project. Therefore, non-biogenic GHG emissions from the combustion of natural gas in Case 2 generate the maximum project-related new GHG emissions. The amount of supplemental natural gas combusted per engine will fluctuate. Thus, these emissions are a conservative estimate. In actual practices, GHG emissions are expected to be significantly lower.

For completeness, both biogenic and non-biogenic GHG emissions associated with Case 2 are presented in Table 2-3 and broken down by the specific greenhouse gas and summed in terms of carbon dioxide equivalents (CO<sub>2</sub>e) in metric tons (MT) per year. Furthermore, note that only the non-biogenic GHG emissions are considered to be an impact associated with the proposed project.

**Table 2-3: Summary of Operational GHG Emissions**

Greenhouse Gas	Biogenic Emissions from Two 100% LFG ICEs and Three 70% LFG ICEs (MT/yr)	Non-Biogenic Emissions from Three 30% Natural Gas ICEs (MT/yr)	Total Project Emissions (MT/yr)
Carbon Dioxide (CO <sub>2</sub> )	76,370	30,889	107,259
Methane (CH <sub>4</sub> )	6.99	2.85	9.85
Nitrous Oxide (N <sub>2</sub> O)	0.14	0.06	0.20
Total CO <sub>2</sub> e	76,586	30,978	107,564

Notes:

- 1) This table presents Case 2 GHG emissions.
- 2) Biogenic GHG emissions are from two ICEs operating on 100% LFG and the portion due to combustion associated with LFG in three of the ICEs when combusting a blend of fuels that use 70% LFG.
- 3) Non-biogenic GHG emissions reflect the portion due to combustion associated with natural gas in three of the ICEs when combusting a blend of fuels that use 30% natural gas.

### 3.0 MODELING AND RISK ASSESSMENT METHODOLOGIES

This section of the report discusses the methodology and model inputs that were used to develop the air dispersion modeling and subsequent HRA. The results of the modeling are provided in Section 4.0.

To assess the potential human health risks posed by the project's TAC emissions, an HRA was conducted following the methodologies outlined in the Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA 2015) and SDAPCD Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments (HRAs) (SDAPCD 2015).

#### 3.1 Air Dispersion Modeling Methodologies

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emission source. The models calculate the concentration of selected pollutants at specific downwind ground level points, such as residential or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and by meteorological and environmental conditions. Factors, such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations, affect the predicted air concentration of an air pollutant. Air dispersion models take all of these factors into consideration when calculating downwind ground level pollutant concentrations.

The operation of the project will result in the emissions of TACs. Thus, a refined HRA using air dispersion modeling was performed using the United States Environmental Protection Agency's (EPA's) AERMOD modeling system (computer software) to assess the health risk impacts of the project's operational emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including the treatment of both surface and elevated sources, building downwash, and simple and complex terrain. Appendix B provides the AERMOD input file. Principal parameters of this modeling include:

- **Model Version Selection:** The air dispersion model used for the HRA was AERMOD Version 16216r. The modeling files were setup in the Lakes Environmental Software implementation/user interface, AERMOD View™ Version 9.2.0, although AERMOD was run independently to utilize the newest version. AERMOD was run with all sources emitting unit emissions [1 gram per second (g/s)] to obtain the "X/Q" values for the 1-hour and period averaging time option per receptor. X/Q is a dispersion factor that is the average effluent concentration normalized by source strength and is used as a way to simplify the representation of emissions from many sources for input into the Hotspots Analysis and Reporting Program, version 2 (HARP2).
- **Model Options:** The modeling included the use of all standard regulatory default options, including the use of rural dispersion parameters and elevated terrain.

- Coordinate System: All geographical coordinates referenced in this section and appendices are in the Universal Transverse Mercator (UTM) coordinate system with the WGS84 Datum, zone 11.
- Meteorological Data: AERMOD-specific meteorological data for the Miramar Marine Corps Station #722931 were used for the dispersion modeling. The 5-year meteorological dataset from 2009 through early 2014 was obtained from the Air Quality Planning and Science Division of the California Air Resources Board (CARB) in a preprocessed format suitable for use in AERMOD and HARP2 modeling (CARB 2015).
- Elevation Data: Digital elevation data were imported into AERMOD and elevations were assigned to receptors, buildings, and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View™ WebGIS import feature in the United States Geological Survey's (USGS') Digital Elevation Model (DEM 7.5) format, with a resolution of 1 degree.
- Receptors: Model results were obtained at various locations around the facility. These receptor locations were identified as the facility boundary, a grid network of receptors to establish the impact area and area where the maximum impact would occur, and discrete receptors that were positioned at specific locations of concern, namely the nearest residences, worker, and sensitive receptors.

The facility boundary was established from an aerial map. Receptors were placed every 50 meters (m) along the fenceline. Grid receptors were placed every 100 m out to 1 kilometer (km), then every 250 m out to 2 km to ensure impacts were below the appropriate CEQA thresholds at all locations off-site.

Based on SDAPCD HRA guidance (SDAPCD 2015), sensitive receptors include schools [kindergarten through grade 12 (K-12)], day care centers, nursing homes, retirement homes, health clinics, hospitals, playgrounds, and athletic facilities within 2 km of the facility. Discrete Cartesian receptors were used to evaluate the location of the maximally exposed residence, sensitive, and off-site workplace. A list of the sensitive and residential receptors within two km of the facilities is provided in Table 3-1. The AERMOD input file presented in Appendix B only includes the sensitive receptors for brevity, but all receptors were included in the modeling assessment. A series of receptors were placed along the worker locations to the west and northeast of the project. Figure 3-1 shows the locations of the discrete receptors, with the property line identified in red.

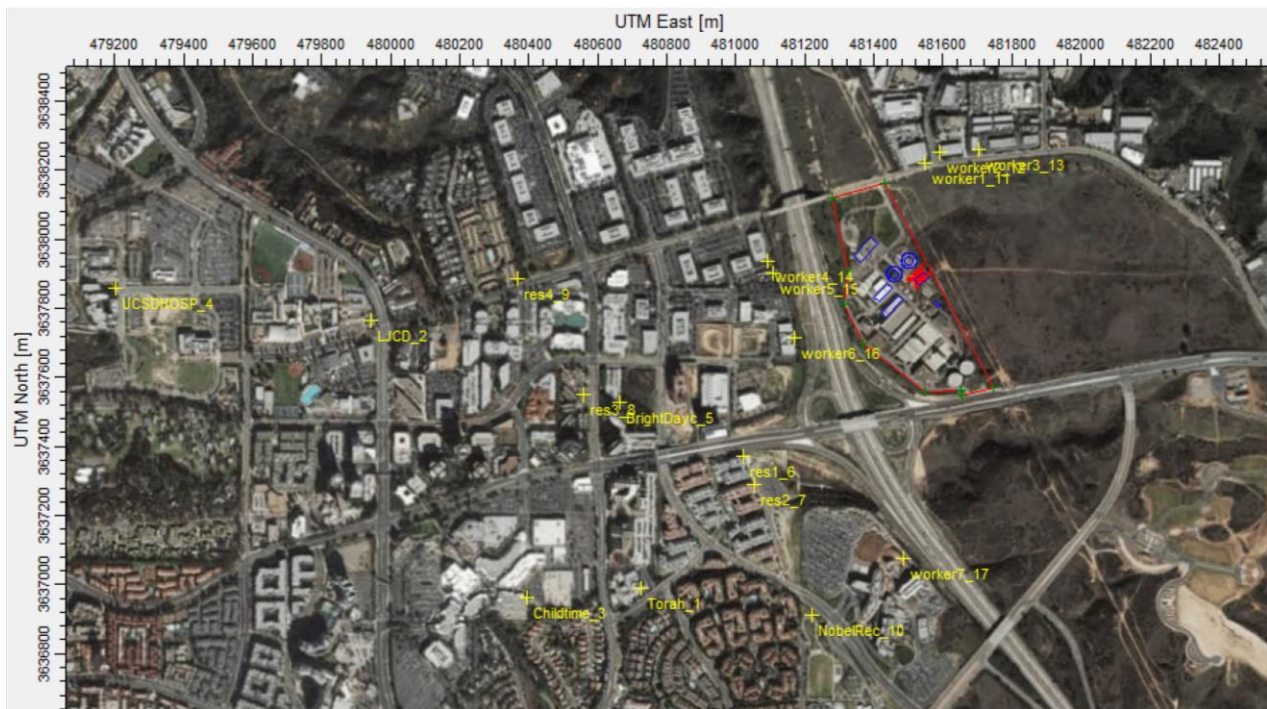
- Emission Sources and Release Parameters: The exhaust stacks from the LFG ICEs were modeled as individual point sources. Each emission source was sited using the plot plan provided, Figure 1-1, and incorporated into AERMOD as shown in red on Figure 3-2. The release parameters for the ICEs are shown in Table 3-2 and were calculated from data provided in the engineering evaluation of the engines for 100% load case. There are six engines, with one as a backup. Thus, no more than five engines will operate simultaneously. The western most five engines were included in the HRA since the closest receptors are to the west of the project.
- On-Site Buildings: For the operational scenario, a total of seven on-site buildings close to the emission sources were included in the modeling using best available dimensional data. Buildings less than 20 feet or greater than 250 feet from the new sources were not included

in the assessment. Building downwash effects were assessed using BPIP/PRIME. The buildings included in AERMOD are shown in blue on Figure 3-2.

**Table 3-1: Nearby Sensitive and Residential Receptors**

Name	UTM Easting (m)	UTM Northing (m)	Distance to Receptor from the Power Units (km)
Torah High School	480727.2	3636989	1.2
La Jolla Country Day	479941.9	3637767	1.6
Childtime	480393.8	3636961	1.5
UCSD Hospital	479201.2	3637859	2.3
Bright Daycare	480662.0	3637527	0.9
Nobel Recreation Center Park	481221.6	3636913	1.0
Resident 1	481019.9	3637371	0.7
Resident 2	481054.5	3637291	0.8
Resident 3	480556.9	3637550	1.0
Resident 4	480367.3	3637887	1.2

**Figure 3-1: Facility with Discrete Receptors**



**Table 3-2: Operational Source Modeling Characteristics**

Stack IDs	Description	Stack Height (m)	Stack Diameter (m)	Stack Flowrate (m/s)	Stack Temp (°K)	UTM x (m)	UTM y (m)
STCK1	LFG ICE	16.764	0.914	17.17	809.26	481,518	3,637,882
STCK2	LFG ICE	16.764	0.914	17.17	809.26	481,523	3,637,886
STCK3	LFG ICE	16.764	0.914	17.17	809.26	481,527	3,637,890
STCK4	LFG ICE	16.764	0.914	17.17	809.26	481,534	3,637,896
STCK5	LFG ICE	16.764	0.914	17.17	809.26	481,539	3,637,900

**Figure 3-2: Project Boundary and Source and Building Locations in AERMOD**



### 3.2 HRA Methodologies

The HRA followed the OEHHA and SDAPCD Tier 1 techniques to calculate the health risk impacts at all receptors, including the nearby residential, sensitive, and off-site worker receptors. The health risk calculations were performed using the HARP2 Air Dispersion and Risk Assessment Tool (ADMRT, version 17023). The X/Q values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and period (annual) emissions to determine the Ground Level Concentrations (GLCs) for each pollutant. The GLCs are then used to estimate the long-term cancer health risk to an individual and the non-cancer chronic and acute health indices.

The Point of Maximum Impact (PMI), the Maximally Exposed Individual Resident (MEIR), the Maximally Exposed Individual Worker (MEIW), and the maximum impact at a sensitive receptor were calculated for cancer risk and non-cancer chronic and acute health indices. The point of



maximum impact is a location within the modeling grid where the model calculates the highest (worst-case) health risk. The point of maximum impact may or may not be a habitable location.

A description of the health risk indices in the HARP2 output is provided below.

### **3.2.1 Cancer Risk**

Cancer risk is the estimated probability of an exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations and 25 years for off-site worker receptor locations. Sensitive receptors, such as schools, hospitals, convalescent homes, and day-care centers, were evaluated the same as residences. The OEHHA Derived Method was used to calculate the cancer risk.

All receptors were assessed for a 30-year cancer risk with a “fraction of time at home” selected for the 3rd trimester through 70 years. Mandatory minimum pathways of inhalation, soil ingestion, dermal absorption, and mother’s milk were selected.

To assess the 25-year cancer risk to workers, all receptors were included in the worker run, but the results only examined the seven worker receptors. Worker pathways of inhalation, soil ingestion, and dermal absorption were selected, and no worker adjustment factor was enabled as the project may operate continuously.

### **3.2.2 Chronic Hazard Risk**

Some TACs increase non-cancer health risk due to long-term (chronic) exposures. The Chronic Hazard Index (HIC) is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The HIC estimates for all receptor types used the OEHHA Derived Method, which uses high-end exposure parameters for inhalation and the next top two exposure pathways and mean exposure parameters for the remaining pathways for non-cancer risk estimates.

### **3.2.3 Acute Hazard Risk**

Some TACs increase non-cancer health risk due to short-term (acute) exposures. The Acute Hazard Index (HIA) is the sum of the individual substance acute hazard indices for all TACs affecting the same target organ system. Acute risk is calculated from a 1-hour exposure.

### **3.2.4 Cancer Burden**

Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a cancer risk of greater than or equal to one in one million ( $1.0 \times 10^{-6}$ ) based on a 70-year exposure to TACs. The cancer burden is determined for the population located within the zone of impact, which is defined as the area within the one in one million cancer risk isopleth for a 70-year exposure. HARP2 is able to generate an isopleth, a line of a constant value, showing the area exposed to a cancer risk above one in one million. Then, the population within this area is determined. If no one lives within this area, there is no cancer burden.

Appendix C presents three HARP model summary files that outline the parameters used in the HRA, specifically the project summary that outlines the emission rates and risk exposure levels used, the 30-year residential cancer risk summary, and the 25-year worker cancer risk summary.

## 4.0 HRA RESULTS

Table 4-1 summarizes the HRA results. Appendix C presents a breakdown of the results by risk and pollutant. The HRA methodology provides conservative results, thus overpredicting risks. To determine if the incremental increase of TAC emissions from a project would cause a significant impact the following thresholds are applied:

- Cancer risk  $\geq 10$  in 1 million;
- HIC and HIA  $\geq 1.0$ ; and
- Cancer burden  $> 1$  excess cancer cases (in areas where cancer risk  $\geq 1$  in 1 million).

Table 4-1 shows the results of the HRA at the PMI, the highest predicted cancer risk from all receptors, at the MEIR, MEIW, and maximum sensitive receptor. The cancer burden is 0 as there is no population in the area where the cancer risk is greater than 1 in a million. Table 4-1 shows that at all receptor types, the predicted health risks are less than the significance thresholds. Thus, the project’s operational TAC impact would be **less than significant**.

**Table 4-1: HRA Results**

Impact Parameter	Receptor Type	Health Risk Impact	Significance Threshold	Significant (Yes/No)
Cancer Risk	PMI	1.16 in a million	10 in a million	No
	MEIR	0.09 in a million	10 in a million	No
	MEIW	0.02 in a million	10 in a million	No
	Maximum Sensitive Receptor	0.08 in a million	10 in a million	No
HIC	PMI	0.056	1	No
	MEIR	0.004	1	No
	MEIW	0.010	1	No
	Maximum Sensitive Receptor	0.004	1	No
HIA	PMI	0.013	1	No
	MEIR	0.002	1	No
	MEIW	0.003	1	No
	Maximum Sensitive Receptor	0.001	1	No
Cancer Burden		0	1	No

## 5.0 REFERENCES

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San Diego Air Pollution Control District (SDAPCD), 2015. Supplemental Guidelines for Submission of Air Toxics “Hot Spots” Program Health Risk Assessments (HRAs), June 2015.

## **APPENDIX A – OPERATIONAL EMISSION CALCULATIONS**

**NCWRP IC engines - Criteria Pollutant Emissions**

Caterpillar Model CG260-16 IC or equivalent ICE

Number of new engines at NCWRP

operating on 100% landfill gas

at full load each engine uses

5 with 1 backup, plus 1 installed in 2026, at which point 4 old engines will be retired

1060 scf/min landfill gas

63600 scf/hr

**NCWRP IC engines on landfill gas emissions**

Pollutant	Emissions per Engine						
	uncontrolled emissions (ppm)	uncontrolled emissions (lb/hr)	control efficiency	controlled emissions (ppm)	controlled emission factor (lb/mmscf)	controlled emissions (lb/hr)	controlled emissions (ton/yr)
NO <sub>x</sub>	91.46	11.49	90%	9.146	18.066	1.149	5.03
CO	164.1	12.57	93.3%	10.995	13.242	0.842	3.69
VOC	17.28	0.758	72.5%	4.752	3.278	0.208	0.91
PM <sub>10</sub>		0.115	0%		1.808	0.115	0.50
PM <sub>2.5</sub>		0.115	0%		1.808	0.115	0.50
SO <sub>x</sub>					2.000	0.127	0.56

Pollutant	Combined Emissions for 5 Engines		
	(lb/hr)	(lb/day)	(ton/yr)
NO <sub>x</sub>	5.75	137.9	25.2
CO	4.21	101.1	18.4
VOC	1.04	25.0	4.6
PM <sub>10</sub>	0.58	13.8	2.5
PM <sub>2.5</sub>	0.58	13.8	2.5
SO <sub>x</sub>	0.64	15.3	2.8

Reference: LFG emissions from - Technical Memorandum: Pure Water - North City Suite of Projects Power Generation Alternatives Evaluation, Dec 2015. File: TO7\_Power Gen Alt Analysis\_TM.PDF

Control efficiency from Oxidation/NCSR performance metrics

Sulfur emission factor based on 2014\_NCWRP\_Em Inventory Report.pdf

**NCWRP IC engines on landfill gas TAC emissions**

Engines operating on 100% landfill gas

5

At full load each engine uses

63600 scf/hr LFG

Pollutant	HARP Pollutant	CAS	TAC emission factor (lbs/mmscf LFG burned)	TAC emissions per engine (lb/hr)	TAC emissions per engine (lb/yr)	Total TAC emissions for all 5 engines (ton/yr)
Methyl chloroform (1,1,1-Trichloroethane)	1,1,1-TCA	71556	0.0033	2.10E-04	1.84E+00	4.60E-03
Acrylonitrile	Acrylonitrile	107131	0.0174	1.11E-03	9.69E+00	2.42E-02
Benzene	Benzene	71432	0.0078	4.96E-04	4.35E+00	1.09E-02
Carbon Disulfide	CS2	75150	0.0023	1.46E-04	1.28E+00	3.20E-03
Carbonyl Sulfide	CarbonylSulfide	463581	0.0015	9.54E-05	8.36E-01	2.09E-03
Chlorobenzene	Chlorobenzn	108907	0.0015	9.54E-05	8.36E-01	2.09E-03
Chloroform	Chloroform	67663	0.0002	1.27E-05	1.11E-01	2.79E-04
Ethyl Benzene	Ethyl Benzene	100414	0.0254	1.62E-03	1.42E+01	3.54E-02
Ethylene dichloride (EDC)	EDC	107062	0.0021	1.34E-04	1.17E+00	2.92E-03
Formaldehyde	Formaldehyde	50000	0.135	8.59E-03	7.52E+01	1.88E-01
Hexane	Hexane	110543	0.0294	1.87E-03	1.64E+01	4.09E-02
Hydrochloric Acid	HCl	7647010	7.43	4.73E-01	4.14E+03	1.03E+01
Hydrogen Sulfide	H2S	7783064	0.0628	3.99E-03	3.50E+01	8.75E-02
Methyl Ethyl Ketone (2-Butanone)	MEK	78933	0.0266	1.69E-03	1.48E+01	3.70E-02
Methyl Isobutyl Ketone (Hexone)	MIBK	108101	0.0097	6.17E-04	5.40E+00	1.35E-02
Methyl Chloride (Chloromethane)	Methyl Chloride	74873	0.0631	4.01E-03	3.52E+01	8.79E-02
Perchloroethylene (Tetrachloroethene)	Perc	127184	0.0321	2.04E-03	1.79E+01	4.47E-02
Toluene	Toluene	108883	0.1881	1.20E-02	1.05E+02	2.62E-01
Trichloroethylene	TCE	79016	0.0192	1.22E-03	1.07E+01	2.67E-02
Vinyl Chloride	Vinyl Chloride	75014	0.0238	1.51E-03	1.33E+01	3.31E-02
Vinylidene Chloride	Vinylid Chlorid	75354	0.001	6.36E-05	5.57E-01	1.39E-03
Xylenes (mixed)	Xylenes	1330207	0.0667	4.24E-03	3.72E+01	9.29E-02

Source: SDAPCD Emission factors for ENGINE, LANDFILL GAS FIRED

Acetone, chlorofluorocarbons, and dimethyl sulfide not include as there are no health risk factors for the substances.

**NCWRP IC engines - GHG Emissions**

**Case 1**

Engines operating on 100% landfill gas

5

At full load each engine uses

63600 scf/hr LFG

Greenhouse Gas	IPCC LFG (kg/TJ)	IPCC LFG (lb/mmscf)	Global Warming Potential	Annual GHG emissions per engine (MT/yr)	Total Annual GHG emissions for all 5 engines (MT/yr)
CO <sub>2</sub>	54,600	73,686	1	18,627	93,134
CH <sub>4</sub>	5	6.75	25	1.71	213
N <sub>2</sub> O	0.1	0.13	298	0.03	51
CO <sub>2</sub> e					93,398

LFG HHV heating value (Btu/scf)

581.9 from design analysis

TJ = Terra Joule = 10<sup>12</sup> Joules

1 Btu =

1054.2 Joule

Emission factors - 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2 stationary Combustion, commercial/institutional sources

**NCWRP IC engines - GHG Emissions**

**Case 2**

Engines operating on 100% landfill gas 2  
 Engines operating on landfill gas/natural gas 3 70% LFG 30% natural gas  
 At full load each engine uses 63600 scf/hr LFG  
 At full load each engine uses 519449 Btu/min NG  
 28802 scf/hr NG

Greenhouse Gas	IPCC LFG (kg/TJ)	IPCC LFG (lb/mmscf)	Global Warming Potential	Annual GHG emissions per 100% LFG engine (MT/yr)	Emissions for 2 100% LFG engines and 3 70% LFG engines (MT/yr)
CO <sub>2</sub>	54,600	73,686	1	18,627	76,370
CH <sub>4</sub>	5	6.75	25	1.71	6.99
N <sub>2</sub> O	0.1	0.13	298	0.03	0.14
CO <sub>2</sub> e					76,586

Greenhouse Gas	IPCC LFG (kg/TJ)	IPCC LFG (lb/mmscf)	Global Warming Potential	Annual GHG emissions per 30% NG engine (MT/yr)	Emissions for 3 30% NG engines (MT/yr)
CO <sub>2</sub>	54,100	135,774	1	10,296	30,889
CH <sub>4</sub>	5	13	25	0.95	2.85
N <sub>2</sub> O	0.1	0.25	298	0.02	0.06
CO <sub>2</sub> e					30,978

Greenhouse Gas	Total Project Emissions (MT/yr)
CO <sub>2</sub>	107,259
CH <sub>4</sub>	9.85
N <sub>2</sub> O	0.20
CO <sub>2</sub> e	107,564

LFG HHV heating value (Btu/scf) 581.9 from design analysis  
 NG HHV heating value (Btu/scf) 1082.1 from design analysis  
 TJ = Terra Joule = 10<sup>12</sup> Joules  
 1 Btu = 1054.2 Joule

Emission factors - 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 2 stationary Combustion, commercial/institutional sources



**NCWRP IC engines**

Caterpillar Model CG260-16 IC or equivalent ICE

**Landfill Gas Stack Parameters**

	Stack Height (ft)	Stack diameter (ft)	Stack exit velocity (ft/s)
Stack Temperature (F)	997	55	3 56.3

Reference: Technical Memorandum: Pure Water - North City Suite of  
Projects Power Generation Alternatives Evaluation, Dec 2015. File:  
TO7\_Power Gen Alt Analysis\_TM.PDF

Stack parameters calculated from data provided in design analysis for 100% load case

**Stack Parameters used in dispersion modeling**

	Stack Height (m)	Stack diameter (m)	Stack exit velocity (m/s)
Stack Temperature (K)	809.26	16.76	0.91 17.17

Stack exhaust temperature and exit velocity were the lower of either LFG or natural gas

**Stack exit velocity calculations for LFG**

assumed or standard data

MWs = molecular wt of stack gas	29 kg/(kg-mole)
Pressure (actual) =	1013.25 mb
Pressure (actual) =	101325 Pa = 1 atm

assume that the stack gas has the same density as air.

density of air (kg/m <sup>3</sup> )	1.275 at 0C and 1000mb
R	8.31E+03 Pa m <sup>3</sup> /(K kg-mole)

Stack data

O <sub>2</sub> content	6.9 %
Water vapor fraction	0.15 assumed
Ts = stack temp	997 F
	809.26 K
Stack diameter	3.00 ft
Stack diameter	0.91 m
stack exhaust Flow	39075 lb/hr

convert from mass flow to volume flow using the following equation

$$\text{Vol flow (acfm)} = \text{mass flow (lb/hr)} \times \text{kg}/2.2046\text{lb} \times \text{R Ts} / \text{MWs P} \times \text{hr}/60\text{min} \times (\text{ft}/.3048\text{m})^3$$

stack exhaust volume	23888 acfm = actual cubic feet per minute
stack exhaust volume	40585.3 m <sup>3</sup> /hr
Stack exit velocity	17.167 m/s

**APPENDIX B – AERMOD INPUT FILE**

AERMOD.INP

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\*\* AERMOD Input Produced by:  
\*\* AERMOD View Ver. 9.2.0  
\*\* Lakes Environmental Software Inc.  
\*\* Date: 2/13/2017  
\*\* File: C:\Lakes\AERMOD View\NCWRP\NCWRP.ADI

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\*\* AERMOD Control Pathway

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CO STARTING  
TITLEONE NCWRP new IC engines  
MODELOPT DFAULT CONC  
AVERTIME 1 PERIOD  
POLLUTID OTHER  
RUNORNOT RUN  
ERRORFIL NCWRP.err

CO FINISHED

\*\*

\*\*\*\*\*

\*\* AERMOD Source Pathway

\*\*\*\*\*

\*\*

\*\*

SO STARTING

\*\* Source Location \*\*

\*\* Source ID - Type - X Coord. - Y Coord. \*\*

LOCATION STCK6	POINT	481541.494	3637902.367	110.300
LOCATION STCK5	POINT	481538.601	3637899.686	110.300
LOCATION STCK4	POINT	481534.430	3637895.880	110.300
LOCATION STCK3	POINT	481526.910	3637889.540	110.300
LOCATION STCK2	POINT	481522.740	3637886.000	110.300
LOCATION STCK1	POINT	481518.390	3637882.380	110.300

\*\* Source Parameters \*\*

SRCPARAM STCK6	1.0	16.764	809.260	17.17000	0.914
SRCPARAM STCK5	1.0	16.764	809.260	17.17000	0.914
SRCPARAM STCK4	1.0	16.764	809.260	17.17000	0.914
SRCPARAM STCK3	1.0	16.764	809.260	17.17000	0.914

AERMOD.INP

SRCPARAM	STCK2	1.0	16.764	809.260	17.17000	0.914
SRCPARAM	STCK1	1.0	16.764	809.260	17.17000	0.914

\*\* Building Downwash \*\*

BUILDHGT	STCK6	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK6	7.62	7.62	7.62	7.62	10.67	10.67
BUILDHGT	STCK6	10.67	10.67	10.67	10.67	7.62	7.62
BUILDHGT	STCK6	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK6	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK6	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK5	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK5	7.62	7.62	7.62	7.62	10.67	10.67
BUILDHGT	STCK5	10.67	10.67	10.67	10.67	7.62	7.62
BUILDHGT	STCK5	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK5	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK5	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK4	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK4	7.62	7.62	7.62	7.62	7.62	10.67
BUILDHGT	STCK4	10.67	10.67	10.67	10.67	10.67	7.62
BUILDHGT	STCK4	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK4	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK4	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK3	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK3	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK3	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT	STCK3	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK3	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK3	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK2	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK2	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK2	10.67	10.67	10.67	10.67	10.67	10.67
BUILDHGT	STCK2	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK2	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK2	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK1	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK1	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK1	7.62	10.67	10.67	10.67	10.67	10.67
BUILDHGT	STCK1	10.67	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK1	7.62	7.62	7.62	7.62	7.62	7.62
BUILDHGT	STCK1	7.62	7.62	7.62	7.62	7.62	7.62

AERMOD.INP

BUILDWID	STCK6	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK6	30.76	35.05	38.27	40.33	42.96	44.16
BUILDWID	STCK6	45.55	45.55	44.16	42.96	43.39	42.11
BUILDWID	STCK6	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK6	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK6	39.10	39.38	42.01	43.36	43.39	42.11
BUILDWID	STCK5	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK5	30.76	35.05	38.27	40.33	42.96	44.16
BUILDWID	STCK5	45.55	45.55	44.16	42.96	43.39	42.11
BUILDWID	STCK5	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK5	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK5	39.10	39.38	42.01	43.36	43.39	42.11
BUILDWID	STCK4	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK4	30.76	35.05	38.27	40.33	41.17	44.16
BUILDWID	STCK4	45.55	45.55	44.16	42.96	45.03	42.11
BUILDWID	STCK4	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK4	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK4	39.10	39.38	42.01	43.36	43.39	42.11
BUILDWID	STCK3	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK3	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK3	45.55	45.55	44.16	42.96	45.03	45.72
BUILDWID	STCK3	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK3	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK3	39.10	39.38	42.01	43.36	43.39	42.11
BUILDWID	STCK2	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK2	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK2	45.55	45.55	44.16	42.96	45.03	45.72
BUILDWID	STCK2	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK2	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK2	39.10	39.38	42.01	43.36	43.39	42.11
BUILDWID	STCK1	39.55	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK1	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK1	39.10	45.55	44.16	42.96	45.03	45.72
BUILDWID	STCK1	45.03	35.78	30.93	25.14	19.53	25.53
BUILDWID	STCK1	30.76	35.05	38.27	40.33	41.17	40.75
BUILDWID	STCK1	39.10	39.38	42.01	43.36	43.39	42.11
BUILDLN	STCK6	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK6	43.36	43.39	42.11	39.55	42.96	44.16
BUILDLN	STCK6	45.55	45.55	44.16	42.96	35.05	38.27
BUILDLN	STCK6	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK6	43.36	43.39	42.11	39.55	35.78	30.93

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BUILDLN	STCK6	25.14	19.53	25.53	30.76	35.05	38.27
BUILDLN	STCK5	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK5	43.36	43.39	42.11	39.55	42.96	44.16
BUILDLN	STCK5	45.55	45.55	44.16	42.96	35.05	38.27
BUILDLN	STCK5	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK5	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK5	25.14	19.53	25.53	30.76	35.05	38.27
BUILDLN	STCK4	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK4	43.36	43.39	42.11	39.55	35.78	44.16
BUILDLN	STCK4	45.55	45.55	44.16	42.96	45.03	38.27
BUILDLN	STCK4	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK4	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK4	25.14	19.53	25.53	30.76	35.05	38.27
BUILDLN	STCK3	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK3	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK3	45.55	45.55	44.16	42.96	45.03	45.72
BUILDLN	STCK3	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK3	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK3	25.14	19.53	25.53	30.76	35.05	38.27
BUILDLN	STCK2	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK2	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK2	45.55	45.55	44.16	42.96	45.03	45.72
BUILDLN	STCK2	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK2	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK2	25.14	19.53	25.53	30.76	35.05	38.27
BUILDLN	STCK1	40.33	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK1	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK1	25.14	45.55	44.16	42.96	45.03	45.72
BUILDLN	STCK1	45.03	41.17	40.75	39.10	39.38	42.01
BUILDLN	STCK1	43.36	43.39	42.11	39.55	35.78	30.93
BUILDLN	STCK1	25.14	19.53	25.53	30.76	35.05	38.27
XBADJ	STCK6	-37.23	-37.55	-36.73	-34.80	-33.35	-32.65
XBADJ	STCK6	-30.95	-28.31	-24.81	-20.56	-70.87	-74.21
XBADJ	STCK6	-76.06	-75.59	-72.82	-68.60	-1.82	-2.50
XBADJ	STCK6	-3.11	-3.62	-4.02	-4.30	-6.03	-9.36
XBADJ	STCK6	-12.41	-15.09	-17.30	-18.99	-20.10	-20.60
XBADJ	STCK6	-20.48	-20.00	-25.22	-29.68	-33.23	-35.77
XBADJ	STCK5	-34.08	-34.04	-32.97	-30.89	-29.42	-28.80
XBADJ	STCK5	-27.32	-25.00	-21.92	-18.18	-69.07	-73.05
XBADJ	STCK5	-75.57	-75.78	-73.70	-70.13	-3.96	-5.18
XBADJ	STCK5	-6.25	-7.12	-7.79	-8.21	-9.96	-13.21

		AERMOD.INP					
XBADJ	STCK5	-16.04	-18.40	-20.19	-21.37	-21.90	-21.77
XBADJ	STCK5	-20.97	-19.81	-24.35	-28.15	-31.09	-33.09
XBADJ	STCK4	-29.61	-29.04	-27.58	-25.29	-23.77	-23.29
XBADJ	STCK4	-22.09	-20.23	-17.75	-14.73	-11.27	-71.35
XBADJ	STCK4	-74.82	-76.02	-74.91	-72.29	-69.75	-8.99
XBADJ	STCK4	-10.72	-12.13	-13.17	-13.81	-15.61	-18.72
XBADJ	STCK4	-21.27	-23.17	-24.36	-24.81	-24.52	-23.47
XBADJ	STCK4	-21.71	-19.57	-23.13	-25.99	-28.06	-29.28
XBADJ	STCK3	-22.06	-20.51	-18.33	-15.60	-13.94	-13.60
XBADJ	STCK3	-12.86	-11.72	-10.23	-8.43	-6.37	-4.11
XBADJ	STCK3	-73.14	-76.05	-76.65	-75.67	-74.69	-71.44
XBADJ	STCK3	-18.27	-20.66	-22.42	-23.50	-25.44	-28.40
XBADJ	STCK3	-30.50	-31.67	-31.88	-31.12	-29.41	-26.81
XBADJ	STCK3	-23.40	-19.55	-21.40	-22.61	-23.12	-22.94
XBADJ	STCK2	-17.85	-15.75	-13.18	-10.21	-8.47	-8.22
XBADJ	STCK2	-7.73	-7.00	-6.06	-4.93	-3.66	-2.27
XBADJ	STCK2	-72.22	-76.08	-77.63	-77.57	-77.45	-74.98
XBADJ	STCK2	-22.48	-25.41	-27.57	-28.89	-30.91	-33.79
XBADJ	STCK2	-35.63	-36.39	-36.05	-34.61	-32.12	-28.66
XBADJ	STCK2	-24.32	-19.52	-20.42	-20.71	-20.36	-19.40
XBADJ	STCK1	-13.53	-10.86	-7.87	-4.64	-2.81	-2.65
XBADJ	STCK1	-2.40	-2.09	-1.71	-1.28	-0.81	-0.32
XBADJ	STCK1	0.19	-76.05	-78.59	-79.49	-80.26	-78.60
XBADJ	STCK1	-74.55	-30.30	-32.88	-34.46	-36.57	-39.36
XBADJ	STCK1	-40.96	-41.31	-40.40	-38.27	-34.97	-30.61
XBADJ	STCK1	-25.32	-19.54	-19.46	-18.79	-17.55	-15.78
YBADJ	STCK6	0.78	-2.21	-5.14	-7.91	-10.24	-12.46
YBADJ	STCK6	-14.30	-15.71	-16.63	-17.06	20.07	11.19
YBADJ	STCK6	1.96	-7.32	-16.38	-24.94	-6.61	-3.75
YBADJ	STCK6	-0.78	2.21	5.14	7.91	10.24	12.46
YBADJ	STCK6	14.30	15.71	16.63	17.06	16.97	16.36
YBADJ	STCK6	15.25	13.66	11.64	9.27	6.61	3.75
YBADJ	STCK5	-1.60	-4.01	-6.30	-8.40	-10.04	-11.58
YBADJ	STCK5	-12.77	-13.57	-13.95	-13.92	23.57	14.95
YBADJ	STCK5	5.88	-3.38	-12.54	-21.31	-3.30	-0.86
YBADJ	STCK5	1.60	4.01	6.30	8.40	10.04	11.58
YBADJ	STCK5	12.77	13.57	13.95	13.92	13.46	12.59
YBADJ	STCK5	11.34	9.73	7.80	5.64	3.30	0.86
YBADJ	STCK4	-5.04	-6.63	-8.01	-9.15	-9.80	-10.37
YBADJ	STCK4	-10.61	-10.54	-10.15	-9.44	-8.45	20.34
YBADJ	STCK4	11.47	2.26	-7.02	-16.08	-24.66	3.31

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YBADJ	STCK4	5.04	6.63	8.01	9.15	9.80	10.37
YBADJ	STCK4	10.61	10.54	10.14	9.44	8.45	7.21
YBADJ	STCK4	5.74	4.08	2.28	0.41	-1.47	-3.31
YBADJ	STCK3	-11.35	-11.52	-11.35	-10.83	-9.78	-8.64
YBADJ	STCK3	-7.23	-5.60	-3.80	-1.89	0.08	2.04
YBADJ	STCK3	21.16	12.10	2.66	-6.85	-16.15	-24.97
YBADJ	STCK3	11.35	11.52	11.35	10.83	9.78	8.64
YBADJ	STCK3	7.23	5.60	3.80	1.89	-0.08	-2.04
YBADJ	STCK3	-3.95	-5.75	-7.40	-8.82	-9.97	-10.83
YBADJ	STCK2	-14.84	-14.23	-13.19	-11.75	-9.75	-7.65
YBADJ	STCK2	-5.33	-2.84	-0.26	2.32	4.83	7.20
YBADJ	STCK2	26.56	17.57	8.04	-1.72	-11.43	-20.80
YBADJ	STCK2	14.84	14.23	13.19	11.75	9.75	7.65
YBADJ	STCK2	5.33	2.84	0.26	-2.32	-4.83	-7.20
YBADJ	STCK2	-9.34	-11.22	-12.78	-13.95	-14.70	-14.99
YBADJ	STCK1	-18.49	-17.08	-15.15	-12.76	-9.77	-6.69
YBADJ	STCK1	-3.41	-0.03	3.36	6.64	9.72	12.51
YBADJ	STCK1	14.91	23.23	13.62	3.61	-6.52	-16.45
YBADJ	STCK1	-25.88	17.08	15.15	12.76	9.77	6.69
YBADJ	STCK1	3.41	0.03	-3.36	-6.64	-9.72	-12.51
YBADJ	STCK1	-14.91	-16.88	-18.36	-19.28	-19.61	-19.34

SRCGROUP STCK1 STCK1  
 SRCGROUP STCK2 STCK2  
 SRCGROUP STCK3 STCK3  
 SRCGROUP STCK4 STCK4  
 SRCGROUP STCK5 STCK5  
 SRCGROUP STCK6 STCK6

SO FINISHED

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\*\* AERMOD Receptor Pathway

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RE STARTING

RE ELEVUNIT METERS

DISCCART	480727.25	3636988.55	96.28	122.50
DISCCART	479941.89	3637766.72	110.84	110.84
DISCCART	480393.77	3636960.77	117.54	117.54
DISCCART	479201.15	3637858.96	107.53	107.53
DISCCART	480661.99	3637527.31	106.02	128.00
DISCCART	481019.87	3637371.39	106.64	118.40
DISCCART	481054.47	3637291.13	88.38	119.00
DISCCART	480556.85	3637550.04	116.51	128.00



			AERMOD.INP		
DISCCART	480367.26	3637886.90	127.55	127.55	
DISCCART	481221.63	3636912.82	98.01	98.01	

RE FINISHED

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\*\* AERMOD Meteorology Pathway

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ME STARTING

SURFFILE 722931.SFC  
 PROFFILE 722931.PFL  
 SURFDATA 93107 2009  
 UAIRDATA 3190 2009  
 PROFBASE 145.4 METERS

ME FINISHED

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\*\* AERMOD Output Pathway

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OU STARTING

RECTABLE ALLAVE 1ST  
 RECTABLE 1 1ST

\*\* Auto-Generated Plotfiles

PLOTFILE 1 STCK1 1ST 1HRSTCK1.PLT 31  
 PLOTFILE 1 STCK2 1ST 1HRSTCK2.PLT 32  
 PLOTFILE 1 STCK3 1ST 1HRSTCK3.PLT 33  
 PLOTFILE 1 STCK4 1ST 1HRSTCK4.PLT 34  
 PLOTFILE 1 STCK5 1ST 1HRSTCK5.PLT 35  
 PLOTFILE 1 STCK6 1ST 1HRSTCK6.PLT 36  
 PLOTFILE PERIOD STCK1 PESTCK1.PLT 37  
 PLOTFILE PERIOD STCK2 PESTCK2.PLT 38  
 PLOTFILE PERIOD STCK3 PESTCK3.PLT 39  
 PLOTFILE PERIOD STCK4 PESTCK4.PLT 40  
 PLOTFILE PERIOD STCK5 PESTCK5.PLT 41  
 PLOTFILE PERIOD STCK6 PESTCK6.PLT 42  
 SUMMFILE NCWRP.sum

OU FINISHED

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\*\* Project Parameters

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\*\* PROJCTN CoordinateSystemUTM  
 \*\* DESCPTN UTM: Universal Transverse Mercator  
 \*\* DATUM World Geodetic System 1984  
 \*\* DTMRGN Global Definition

AERMOD.INP

\*\* UNITS m  
\*\* ZONE 11  
\*\* ZONEINX 0  
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## **APPENDIX C – HARP2 SUMMARY OUTPUTS**

**Maximum Cancer Risk by Pollutant at PMI, MEIR, MEIW, and Sensitive Receptor**  
**NCWRP New LFG IC Engines**

Pollutant CAS	Pollutant	Point of Maximum Impact (PMI)		Maximum Exposed Individual Resident (MEIR)		Maximum Exposed Individual Worker (MEIW)		Maximum Sensitive Receptor	
		receptor #	754	receptor #	8	receptor #	11	receptor #	5
		Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)
-	ALL	1.16E-06	100%	8.77E-08	100%	1.89E-08	100%	7.55E-08	100%
71556	1,1,1-TCA	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107131	Acrylonitrile	7.04E-07	60.78%	5.33E-08	60.79%	1.15E-08	60.78%	4.59E-08	60.79%
71432	Benzene	3.15E-08	2.72%	2.39E-09	2.72%	5.14E-10	2.72%	2.06E-09	2.72%
75150	CS2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
463581	CarbonylSulfide	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108907	Chlorobenzn	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
67663	Chloroform	1.54E-10	0.01%	1.16E-11	0.01%	2.50E-12	0.01%	1.00E-11	0.01%
100414	Ethyl Benzene	8.94E-09	0.77%	6.77E-10	0.77%	1.46E-10	0.77%	5.83E-10	0.77%
107062	EDC	6.11E-09	0.53%	4.63E-10	0.53%	9.96E-11	0.53%	3.99E-10	0.53%
50000	Formaldehyde	1.15E-07	9.90%	8.68E-09	9.90%	1.87E-09	9.90%	7.48E-09	9.90%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7647010	HCl	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7783064	H2S	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
78933	MEK	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108101	MIBK	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
74873	Methyl Chloride	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
127184	Perc	2.73E-08	2.35%	2.06E-09	2.35%	4.44E-10	2.35%	1.78E-09	2.35%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
79016	TCE	5.43E-09	0.47%	4.12E-10	0.47%	8.85E-11	0.47%	3.55E-10	0.47%
75014	Vinyl Chloride	2.60E-07	22.45%	1.97E-08	22.45%	4.23E-09	22.45%	1.70E-08	22.45%
75354	Vinylid Chlorid	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

**Maximum Chronic Risk by Pollutant at PMI, MEIR, MEIW, and Sensitive Receptor**  
**NCWRP New LFG IC Engines**

Pollutant CAS	Pollutant	Point of Maximum Impact (PMI)		Maximum Exposed Individual Resident (MEIR)		Maximum Exposed Individual Worker (MEIW)		Maximum Sensitive Receptor	
		receptor #	754	receptor #	8	receptor #	11	receptor #	5
		Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)
-	ALL	5.55E-02	100%	4.21E-03	100%	9.96E-03	100%	3.62E-03	100%
71556	1,1,1-TCA	2.15E-07	0.00%	1.63E-08	0.00%	3.86E-08	0.00%	1.40E-08	0.00%
107131	Acrylonitrile	2.27E-04	0.41%	1.72E-05	0.41%	4.07E-05	0.41%	1.48E-05	0.41%
71432	Benzene	1.70E-04	0.31%	1.28E-05	0.31%	3.04E-05	0.31%	1.11E-05	0.31%
75150	CS2	1.88E-07	0.00%	1.42E-08	0.00%	3.37E-08	0.00%	1.22E-08	0.00%
463581	CarbonylSulfide	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108907	Chlorobenzn	9.78E-08	0.00%	7.41E-09	0.00%	1.76E-08	0.00%	6.38E-09	0.00%
67663	Chloroform	4.35E-08	0.00%	3.29E-09	0.00%	7.80E-09	0.00%	2.84E-09	0.00%
100414	Ethyl Benzene	8.28E-07	0.00%	6.28E-08	0.00%	1.49E-07	0.00%	5.40E-08	0.00%
107062	EDC	3.42E-07	0.00%	2.59E-08	0.00%	6.15E-08	0.00%	2.23E-08	0.00%
50000	Formaldehyde	9.78E-04	1.76%	7.41E-05	1.76%	1.76E-04	1.76%	6.38E-05	1.76%
110543	Hexane	2.74E-07	0.00%	2.08E-08	0.00%	4.92E-08	0.00%	1.79E-08	0.00%
7647010	HCl	5.39E-02	97.01%	4.08E-03	97.01%	9.66E-03	97.01%	3.51E-03	97.01%
7783064	H2S	4.10E-04	0.74%	3.10E-05	0.74%	7.35E-05	0.74%	2.67E-05	0.74%
78933	MEK	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108101	MIBK	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
74873	Methyl Chloride	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
127184	Perc	5.98E-05	0.11%	4.53E-06	0.11%	1.07E-05	0.11%	3.90E-06	0.11%
108883	Toluene	4.09E-05	0.07%	3.10E-06	0.07%	7.34E-06	0.07%	2.67E-06	0.07%
79016	TCE	2.09E-06	0.00%	1.58E-07	0.00%	3.75E-07	0.00%	1.36E-07	0.00%
75014	Vinyl Chloride	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
75354	Vinylid Chlorid	9.32E-07	0.00%	7.06E-08	0.00%	1.67E-07	0.00%	6.08E-08	0.00%
1330207	Xylenes	6.22E-06	0.01%	4.71E-07	0.01%	1.12E-06	0.01%	4.05E-07	0.01%

**Maximum Acute Risk by Pollutant at PMI, MEIR, MEIW, and Sensitive Receptor**  
**NCWRP New LFG IC Engines**

Pollutant CAS	Pollutant	Point of Maximum Impact (PMI)		Maximum Exposed Individual Resident (MEIR)		Maximum Exposed Individual Worker (MEIW)		Maximum Sensitive Receptor	
		receptor #	1468	receptor #	6	receptor #	11	receptor #	5
		Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)
-	ALL	1.28E-02	100%	1.54E-03	100%	3.40E-03	100%	1.18E-03	100%
71556	1,1,1-TCA	1.04E-07	0.00%	1.24E-08	0.00%	2.75E-08	0.00%	9.55E-09	0.00%
107131	Acrylonitrile	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	6.16E-04	4.81%	7.40E-05	4.81%	1.64E-04	4.81%	5.69E-05	4.81%
75150	CS2	7.92E-07	0.01%	9.50E-08	0.01%	2.10E-07	0.01%	7.30E-08	0.01%
463581	CarbonylSulfide	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108907	Chlorobenzn	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
67663	Chloroform	2.84E-06	0.02%	3.41E-07	0.02%	7.55E-07	0.02%	2.63E-07	0.02%
100414	Ethyl Benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107062	EDC	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50000	Formaldehyde	5.24E-03	40.88%	6.29E-04	40.88%	1.39E-03	40.88%	4.83E-04	40.88%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7647010	HCl	7.55E-03	58.92%	9.06E-04	58.92%	2.00E-03	58.92%	6.97E-04	58.92%
7783064	H2S	3.19E-03	24.90%	3.83E-04	24.90%	8.47E-04	24.90%	2.94E-04	24.90%
78933	MEK	4.37E-06	0.03%	5.24E-07	0.03%	1.16E-06	0.03%	4.03E-07	0.03%
108101	MIBK	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
74873	Methyl Chloride	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
127184	Perc	3.42E-06	0.03%	4.11E-07	0.03%	9.09E-07	0.03%	3.16E-07	0.03%
108883	Toluene	1.08E-05	0.08%	1.30E-06	0.08%	2.88E-06	0.08%	1.00E-06	0.08%
79016	TCE	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
75014	Vinyl Chloride	2.82E-07	0.00%	3.39E-08	0.00%	7.49E-08	0.00%	2.60E-08	0.00%
75354	Vinylid Chlorid	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes	6.47E-06	0.05%	7.76E-07	0.05%	1.72E-06	0.05%	5.97E-07	0.05%

# HARP Model Summary Files

ProjectSummaryReport.txt

HARP Project Summary Report 2/13/2017 1:26:43 PM

\*\*\*PROJECT INFORMATION\*\*\*

HARP Version: 17023  
 Project Name: NCWRP  
 Project Output Directory: C:\HARP2\projects\NCWRP\NCWRP  
 HARP Database: NA

\*\*\*FACILITY INFORMATION\*\*\*

Origin  
 X (m):0  
 Y (m):0  
 Zone:1  
 No. of Sources:0  
 No. of Buildings:0

\*\*\*EMISSION INVENTORY\*\*\*

No. of Pollutants:110  
 No. of Background Pollutants:0

Emissions SrcID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
1	0	0	107131	Acrylonitrile	1	9.6941664	0.00110664	1
1	0	0	71432	Benzene	1	4.3456608	0.00049608	1
1	0	0	75150	CS2	1	1.2814128	0.00014628	1
1	0	0	463581	CarbonylSulfide	1	0.835704	9.54E-05	1
1	0	0	108907	Chlorobenzn	1	0.835704	9.54E-05	1
1	0	0	67663	Chloroform	1	0.1114272	1.272E-05	1
1	0	0	100414	Ethyl Benzene	1	14.1512544	0.00161544	1
1	0	0	107062	EDC	1	1.1699856	0.00013356	1
1	0	0	50000	Formaldehyde	1	75.21336	0.008586	1
1	0	0	110543	Hexane	1	16.3797984	0.00186984	1
1	0	0	7647010	HCl	1	4139.52048	0.472548	1
1	0	0	7783064	H2S	1	34.9881408	0.00399408	1
1	0	0	78933	MEK	1	14.8198176	0.00169176	1
1	0	0	108101	MIBK	1	5.4042192	0.00061692	1
1	0	0	74873	Methyl Chloride	1	35.1552816	0.00401316	1
1	0	0	127184	Perc	1	17.8840656	0.00204156	1
1	0	0	108883	Toluene	1	104.7972816	0.01196316	1
1	0	0	79016	TCE	1	10.6970112	0.00122112	1
1	0	0	75014	Vinyl Chloride	1	13.2598368	0.00151368	1
1	0	0	75354	Vinylid Chlorid	1	0.557136	6.36E-05	1
1	0	0	1330207	Xylenes	1	37.1609712	0.00424212	1
2	0	0	71556	1,1,1-TCA	1	1.8385488	0.00020988	1
2	0	0	107131	Acrylonitrile	1	9.6941664	0.00110664	1
2	0	0	71432	Benzene	1	4.3456608	0.00049608	1
2	0	0	75150	CS2	1	1.2814128	0.00014628	1
2	0	0	463581	CarbonylSulfide	1	0.835704	9.54E-05	1
2	0	0	108907	Chlorobenzn	1	0.835704	9.54E-05	1
2	0	0	67663	Chloroform	1	0.1114272	1.272E-05	1
2	0	0	100414	Ethyl Benzene	1	14.1512544	0.00161544	1

## ProjectSummaryReport.txt

2	0	0	107062	EDC	1	1.1699856	0.00013356	1
2	0	0	50000	Formaldehyde	1	75.21336	0.008586	1
2	0	0	110543	Hexane	1	16.3797984	0.00186984	1
2	0	0	7647010	HCl	1	4139.52048	0.472548	1
2	0	0	7783064	H2S	1	34.9881408	0.00399408	1
2	0	0	78933	MEK	1	14.8198176	0.00169176	1
2	0	0	108101	MIBK	1	5.4042192	0.00061692	1
2	0	0	74873	Methyl Chloride	1	35.1552816	0.00401316	1
2	0	0	127184	Perc	1	17.8840656	0.00204156	1
2	0	0	108883	Toluene	1	104.7972816	0.01196316	1
2	0	0	79016	TCE	1	10.6970112	0.00122112	1
2	0	0	75014	Vinyl Chloride	1	13.2598368	0.00151368	1
2	0	0	75354	Vinylid Chlorid	1	0.557136	6.36E-05	1
3	0	0	71556	1,1,1-TCA	1	1.8385488	0.00020988	1
3	0	0	107131	Acrylonitrile	1	9.6941664	0.00110664	1
3	0	0	71432	Benzene	1	4.3456608	0.00049608	1
3	0	0	75150	CS2	1	1.2814128	0.00014628	1
3	0	0	463581	CarbonylSulfide	1	0.835704	9.54E-05	1
3	0	0	108907	Chlorobenzn	1	0.835704	9.54E-05	1
3	0	0	67663	Chloroform	1	0.1114272	1.272E-05	1
3	0	0	100414	Ethyl Benzene	1	14.1512544	0.00161544	1
3	0	0	107062	EDC	1	1.1699856	0.00013356	1
3	0	0	50000	Formaldehyde	1	75.21336	0.008586	1
3	0	0	110543	Hexane	1	16.3797984	0.00186984	1
3	0	0	7647010	HCl	1	4139.52048	0.472548	1
3	0	0	7783064	H2S	1	34.9881408	0.00399408	1
3	0	0	78933	MEK	1	14.8198176	0.00169176	1
3	0	0	108101	MIBK	1	5.4042192	0.00061692	1
3	0	0	74873	Methyl Chloride	1	35.1552816	0.00401316	1
3	0	0	127184	Perc	1	17.8840656	0.00204156	1
3	0	0	108883	Toluene	1	104.7972816	0.01196316	1
3	0	0	79016	TCE	1	10.6970112	0.00122112	1
3	0	0	75014	Vinyl Chloride	1	13.2598368	0.00151368	1
3	0	0	75354	Vinylid Chlorid	1	0.557136	6.36E-05	1
3	0	0	1330207	Xylenes	1	37.1609712	0.00424212	1
4	0	0	71556	1,1,1-TCA	1	1.8385488	0.00020988	1
4	0	0	107131	Acrylonitrile	1	9.6941664	0.00110664	1
4	0	0	71432	Benzene	1	4.3456608	0.00049608	1
4	0	0	75150	CS2	1	1.2814128	0.00014628	1
4	0	0	463581	CarbonylSulfide	1	0.835704	9.54E-05	1



ProjectSummaryReport.txt								
4	0	0	108907	Chlorobenzn	1	0.835704	9.54E-05	1
4	0	0	67663	Chloroform	1	0.1114272	1.272E-05	1
4	0	0	100414	Ethyl Benzene	1	14.1512544	0.00161544	1
4	0	0	107062	EDC	1	1.1699856	0.00013356	1
4	0	0	50000	Formaldehyde	1	75.21336	0.008586	1
4	0	0	110543	Hexane	1	16.3797984	0.00186984	1
4	0	0	7647010	HCl	1	4139.52048	0.472548	1
4	0	0	7783064	H2S	1	34.9881408	0.00399408	1
4	0	0	78933	MEK	1	14.8198176	0.00169176	1
4	0	0	108101	MIBK	1	5.4042192	0.00061692	1
4	0	0	74873	Methyl Chloride	1	35.1552816	0.00401316	1
4	0	0	127184	Perc	1	17.8840656	0.00204156	1
4	0	0	108883	Toluene	1	104.7972816	0.01196316	1
4	0	0	79016	TCE	1	10.6970112	0.00122112	1
4	0	0	75014	Vinyl Chloride	1	13.2598368	0.00151368	1
4	0	0	75354	Vinylid Chlorid	1	0.557136	6.36E-05	1
4	0	0	1330207	Xylenes	1	37.1609712	0.00424212	1
5	0	0	71556	1,1,1-TCA	1	1.8385488	0.00020988	1
5	0	0	107131	Acrylonitrile	1	9.6941664	0.00110664	1
5	0	0	71432	Benzene	1	4.3456608	0.00049608	1
5	0	0	75150	CS2	1	1.2814128	0.00014628	1
5	0	0	463581	CarbonylSulfide	1	0.835704	9.54E-05	1
5	0	0	108907	Chlorobenzn	1	0.835704	9.54E-05	1
5	0	0	67663	Chloroform	1	0.1114272	1.272E-05	1
5	0	0	100414	Ethyl Benzene	1	14.1512544	0.00161544	1
5	0	0	107062	EDC	1	1.1699856	0.00013356	1
5	0	0	50000	Formaldehyde	1	75.21336	0.008586	1
5	0	0	110543	Hexane	1	16.3797984	0.00186984	1
5	0	0	7647010	HCl	1	4139.52048	0.472548	1
5	0	0	7783064	H2S	1	34.9881408	0.00399408	1
5	0	0	78933	MEK	1	14.8198176	0.00169176	1
5	0	0	108101	MIBK	1	5.4042192	0.00061692	1
5	0	0	74873	Methyl Chloride	1	35.1552816	0.00401316	1
5	0	0	127184	Perc	1	17.8840656	0.00204156	1
5	0	0	108883	Toluene	1	104.7972816	0.01196316	1
5	0	0	79016	TCE	1	10.6970112	0.00122112	1
5	0	0	75014	Vinyl Chloride	1	13.2598368	0.00151368	1
5	0	0	75354	Vinylid Chlorid	1	0.557136	6.36E-05	1
5	0	0	1330207	Xylenes	1	37.1609712	0.00424212	1
1	0	0	71556	1,1,1-TCA	1	1.8385488	0.00020988	1
2	0	0	1330207	Xylenes	1	37.1609712	0.00424212	1

ProjectSummaryReport.txt

Background  
 PolID PolAbbrev Conc (ug/m^3) MWAf

Ground level concentration files (\glc\)

100414MAXHR.txt  
 100414PER.txt  
 107062MAXHR.txt  
 107062PER.txt  
 107131MAXHR.txt  
 107131PER.txt  
 108101MAXHR.txt  
 108101PER.txt  
 108883MAXHR.txt  
 108883PER.txt  
 108907MAXHR.txt  
 108907PER.txt  
 110543MAXHR.txt  
 110543PER.txt  
 127184MAXHR.txt  
 127184PER.txt  
 1330207MAXHR.txt  
 1330207PER.txt  
 463581MAXHR.txt  
 463581PER.txt  
 50000MAXHR.txt  
 50000PER.txt  
 67663MAXHR.txt  
 67663PER.txt  
 71432MAXHR.txt  
 71432PER.txt  
 71556MAXHR.txt  
 71556PER.txt  
 74873MAXHR.txt  
 74873PER.txt  
 75014MAXHR.txt  
 75014PER.txt  
 75150MAXHR.txt  
 75150PER.txt  
 75354MAXHR.txt  
 75354PER.txt  
 7647010MAXHR.txt  
 7647010PER.txt  
 7783064MAXHR.txt  
 7783064PER.txt  
 78933MAXHR.txt  
 78933PER.txt  
 79016MAXHR.txt  
 79016PER.txt

\*\*\*POLLUTANT HEALTH INFORMATION\*\*\*  
 Health Database: C:\HARP2\Tables\HEALTH1.mdb  
 Health Table Version: HEALTH16088  
 Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
107131	Acrylonitrile	1			5		
71432	Benzene	0.1		27	3		3
75150	CS2			6200	800		
463581	CarbonylSulfide						
108907	Chlorobenzn				1000		
67663	Chloroform	0.019		150	300		
100414	Ethyl Benzene	0.0087			2000		
107062	EDC	0.072			400		
50000	Formaldehyde	0.021		55	9		9
110543	Hexane				7000		
7647010	HCl			2100	9		
7783064	H2S			42	10		
78933	MEK			13000			
108101	MIBK						
74873	Methyl Chloride						
127184	Perc	0.021		20000	35		
108883	Toluene			37000	300		
79016	TCE	0.007			600		
75014	Vinyl Chloride	0.27		180000	70		
75354	Vinylid Chlorid						
1330207	Xylenes			22000	700		

71556 1,1,1-TCA

\*\*\*AIR DISPERSION MODELING INFORMATION\*\*\*

All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (<http://www.epa.gov/scram001/>)  
AERMOD: 15181  
AERMAP: 11103  
BPIPRM: 04274  
AERPLOT: 13329

\*\*\*METEOROLOGICAL INFORMATION\*\*\*

Version:  
Surface File:  
Profile File:  
Surface Station:  
Upper Station:  
On-Site Station:

\*\*\*LIST OF AIR DISPERSION FILES\*\*\*

AERMOD Input File:  
AERMOD Output File:  
AERMOD Error File:  
Plotfile list

---

1HRSTCK1.PLT  
1HRSTCK2.PLT  
1HRSTCK3.PLT  
1HRSTCK4.PLT  
1HRSTCK5.PLT  
PESTCK1.PLT  
PESTCK2.PLT  
PESTCK3.PLT  
PESTCK4.PLT  
PESTCK5.PLT

\*\*\*LIST OF RISK ASSESSMENT FILES\*\*\*

Health risk analysis files (\hra\)

---

5.NCWRPGLCLList.csv  
5.NCWRPHRAInput.hra  
5.NCWRPPathwayRec.csv  
5.NCWRPPoLDB.csv  
NCWRPCancerRisk.csv  
NCWRPCancerRiskSumByRec.csv  
NCWRPGLCLList.csv  
NCWRPHRAInput.hra  
NCWRPNCAcuteRisk.csv  
NCWRPNCAcuteRiskSumByRec.csv  
NCWRPNChronicRisk.csv  
NCWRPNChronicRiskSumByRec.csv  
NCWRPOutput.txt  
NCWRPPathwayRec.csv  
NCWRPPoLDB.csv

Spatial averaging files (\sa\)

---

GLCs loaded successfully  
Pollutants loaded successfully  
Pathway receptors loaded successfully

\*\*\*\*\*

RISK SCENARIO SETTINGS

Receptor Type: Resident  
Scenario: All  
Calculation Method: Derived

\*\*\*\*\*

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25  
Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25  
0<2 Years Bin: 2  
2<9 Years Bin: 0  
2<16 Years Bin: 14  
16<30 Years Bin: 14  
16 to 70 Years Bin: 0

\*\*\*\*\*

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True  
Soil: True  
Dermal: True  
Mother's milk: True  
Water: False  
Fish: False  
Homegrown crops: False  
Beef: False  
Dairy: False  
Pig: False  
Chicken: False  
Egg: False

\*\*\*\*\*

INHALATION

Daily breathing rate: LongTerm24HR

**\*\*Worker Adjustment Factors\*\***

Worker adjustment factors enabled: NO

**\*\*Fraction at time at home\*\***

3rd Trimester to 16 years: ON

16 years to 70 years: ON

\*\*\*\*\*

**SOIL & DERMAL PATHWAY SETTINGS**

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Mixed

\*\*\*\*\*

**TIER 2 SETTINGS**

Tier2 not used.

\*\*\*\*\*

**Calculating cancer risk**

Cancer risk breakdown by pollutant and receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPCancerRisk.csv

Cancer risk total by receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPCancerRiskSumByRec.csv

Cancer risk total by receptor and source saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\CancerRiskSumByRec.csv

**Calculating chronic risk**

Chronic risk breakdown by pollutant and receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPNCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPNCChronicRiskSumByRec.csv

Chronic risk total by receptor and source saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPNCChronicRiskSumByRecBySrc.csv

**Calculating acute risk**

Acute risk breakdown by pollutant and receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPNCAcuteRisk.csv

Acute risk total by receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPNCAcuteRiskSumByRec.csv

Acute risk total by receptor and source saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRPNCAcuteRiskSumByRecBySrc.csv

HRA ran successfully

GLCs loaded successfully  
Pollutants loaded successfully  
Pathway receptors loaded successfully

\*\*\*\*\*

RISK SCENARIO SETTINGS

Receptor Type: Worker  
Scenario: All  
Calculation Method: Derived

\*\*\*\*\*

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16  
Total Exposure Duration: 25

Exposure Duration Bin Distribution

3rd Trimester Bin: 0  
0<2 Years Bin: 0  
2<9 Years Bin: 0  
2<16 Years Bin: 0  
16<30 Years Bin: 0  
16 to 70 Years Bin: 25

\*\*\*\*\*

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True  
Soil: True  
Dermal: True  
Mother's milk: False  
Water: False  
Fish: False  
Homegrown crops: False  
Beef: False  
Dairy: False  
Pig: False  
Chicken: False  
Egg: False

\*\*\*\*\*

INHALATION

Daily breathing rate: Moderate8HR

**\*\*Worker Adjustment Factors\*\***

Worker adjustment factors enabled: NO

**\*\*Fraction at time at home\*\***

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

\*\*\*\*\*

**SOIL & DERMAL PATHWAY SETTINGS**

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Mixed

\*\*\*\*\*

**TIER 2 SETTINGS**

Tier2 not used.

\*\*\*\*\*

**Calculating cancer risk**

Cancer risk breakdown by pollutant and receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerCancerRisk.csv

Cancer risk total by receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerCancerRiskSumByRec.csv

Cancer risk total by receptor and source saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\CancerRiskSumByRec.csv

**Calculating chronic risk**

Chronic risk breakdown by pollutant and receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerNCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerNCChronicRiskSumByRec.csv

Chronic risk total by receptor and source saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerNCChronicRiskSumByRecBySrc.csv

**Calculating acute risk**

Acute risk breakdown by pollutant and receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerNCAcuteRisk.csv

Acute risk total by receptor saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerNCAcuteRiskSumByRec.csv

Acute risk total by receptor and source saved to:

C:\HARP2\projects\NCWRP\NCWRP\hra\NCWRP-workerNCAcuteRiskSumByRecBySrc.csv

HRA ran successfully

Mission Trails Booster Station - San Diego County APCD Air District, Annual

**Mission Trails Booster Station**  
**San Diego County APCD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	4.03	1000sqft	0.09	4,025.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information. For HRA vendor and haul truck trip length was assumed for onsite diesel emissions only.

On-road Fugitive Dust - CalEEMod Defaults.



## Mission Trails Booster Station - San Diego County APCD Air District, Annual

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use represents grid supplied only. All other energy use emissions are calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	30.00
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.21	2,484.47
tblEnergyUse	T24NG	4.31	0.00
tblGrading	AcresOfGrading	45.00	1.10
tblGrading	MaterialExported	0.00	700,000.00
tblGrading	MaterialImported	0.00	112,000.00
tblLandUse	LandUseSquareFeet	4,030.00	4,025.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00

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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	5.00	0.29
tblTripsAndVMT	HaulingTripLength	20.00	0.19
tblTripsAndVMT	HaulingTripNumber	101,500.00	36,750.00
tblTripsAndVMT	VendorTripLength	6.60	0.19
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	0.00

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tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	931,937.50	10,400.00

## 2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-9-2019	8-8-2019	2.5386	2.0688
2	8-9-2019	11-8-2019	0.3114	0.1958
3	11-9-2019	2-8-2020	0.2669	0.1609
4	2-9-2020	5-8-2020	0.2479	0.1605
5	5-9-2020	8-8-2020	0.2133	0.1422
		Highest	2.5386	2.0688

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0176	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	8.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3,268.0850	3,268.0850	0.1315	0.0272	3,279.4837
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>3,268.1293</b>	<b>3,268.1915</b>	<b>0.1354</b>	<b>0.0272</b>	<b>3,279.6882</b>



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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0176	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3,268.0850	3,268.0850	0.1315	0.0272	3,279.4837
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0589	0.0000	0.0589	3.4800e-003	0.0000	0.1458
Water						0.0000	0.0000		0.0000	0.0000	3.3000e-003	0.0443	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0622</b>	<b>3,268.1293</b>	<b>3,268.1914</b>	<b>0.1354</b>	<b>0.0272</b>	<b>3,279.6882</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/9/2019	6/19/2019	5	30	
2	Trenching	Trenching	6/20/2019	8/28/2019	5	50	
3	Building Construction	Building Construction	8/29/2019	7/15/2020	5	230	
4	Paving	Paving	7/16/2020	7/22/2020	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 1.1**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Excavators	1	4.00	158	0.38
Trenching	Off-Highway Trucks	1	4.00	402	0.38
Trenching	Rollers	1	4.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Welders	2	4.00	46	0.45
Building Construction	Aerial Lifts	2	4.00	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Rollers	1	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	4	4.00	9	0.56
Paving	Crushing/Proc. Equipment	1	4.00	85	0.78
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	4.00	130	0.42
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	0.00	0.00	36,750.00	0.00	6.60	0.19	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	2.00	0.00	0.00	0.19	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	0.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1480	0.0000	0.1480	0.0584	0.0000	0.0584	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0327	0.3545	0.2002	4.2000e-004		0.0159	0.0159		0.0148	0.0148	0.0000	37.7808	37.7808	0.0109	0.0000	38.0536
<b>Total</b>	<b>0.0327</b>	<b>0.3545</b>	<b>0.2002</b>	<b>4.2000e-004</b>	<b>0.1480</b>	<b>0.0159</b>	<b>0.1639</b>	<b>0.0584</b>	<b>0.0148</b>	<b>0.0731</b>	<b>0.0000</b>	<b>37.7808</b>	<b>37.7808</b>	<b>0.0109</b>	<b>0.0000</b>	<b>38.0536</b>

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**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0390	1.8487	0.2963	1.9600e-003	3.3700e-003	1.8100e-003	5.1800e-003	9.6000e-004	1.7300e-003	2.6900e-003	0.0000	192.5984	192.5984	0.0385	0.0000	193.5609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0390</b>	<b>1.8487</b>	<b>0.2963</b>	<b>1.9600e-003</b>	<b>3.3700e-003</b>	<b>1.8100e-003</b>	<b>5.1800e-003</b>	<b>9.6000e-004</b>	<b>1.7300e-003</b>	<b>2.6900e-003</b>	<b>0.0000</b>	<b>192.5984</b>	<b>192.5984</b>	<b>0.0385</b>	<b>0.0000</b>	<b>193.5609</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0666	0.0000	0.0666	0.0263	0.0000	0.0263	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	-0.0140	-0.0109	0.2519	4.2000e-004		3.0000e-005	3.0000e-005		1.4500e-003	1.4500e-003	0.0000	37.7808	37.7808	0.0109	0.0000	38.0536
<b>Total</b>	<b>-0.0140</b>	<b>-0.0109</b>	<b>0.2519</b>	<b>4.2000e-004</b>	<b>0.0666</b>	<b>3.0000e-005</b>	<b>0.0666</b>	<b>0.0263</b>	<b>1.4500e-003</b>	<b>0.0277</b>	<b>0.0000</b>	<b>37.7808</b>	<b>37.7808</b>	<b>0.0109</b>	<b>0.0000</b>	<b>38.0536</b>

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**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0390	1.8487	0.2963	1.9600e-003	3.3700e-003	1.8100e-003	5.1800e-003	9.6000e-004	1.7300e-003	2.6900e-003	0.0000	192.5984	192.5984	0.0385	0.0000	193.5609
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0390</b>	<b>1.8487</b>	<b>0.2963</b>	<b>1.9600e-003</b>	<b>3.3700e-003</b>	<b>1.8100e-003</b>	<b>5.1800e-003</b>	<b>9.6000e-004</b>	<b>1.7300e-003</b>	<b>2.6900e-003</b>	<b>0.0000</b>	<b>192.5984</b>	<b>192.5984</b>	<b>0.0385</b>	<b>0.0000</b>	<b>193.5609</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.2953	0.2636	4.8000e-004		0.0160	0.0160		0.0151	0.0151	0.0000	41.9714	41.9714	0.0109	0.0000	42.2445
<b>Total</b>	<b>0.0362</b>	<b>0.2953</b>	<b>0.2636</b>	<b>4.8000e-004</b>		<b>0.0160</b>	<b>0.0160</b>		<b>0.0151</b>	<b>0.0151</b>	<b>0.0000</b>	<b>41.9714</b>	<b>41.9714</b>	<b>0.0109</b>	<b>0.0000</b>	<b>42.2445</b>

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**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7100e-003	0.2421	0.3110	4.8000e-004		0.0134	0.0134		0.0137	0.0137	0.0000	41.9714	41.9714	0.0109	0.0000	42.2445
<b>Total</b>	<b>8.7100e-003</b>	<b>0.2421</b>	<b>0.3110</b>	<b>4.8000e-004</b>		<b>0.0134</b>	<b>0.0134</b>		<b>0.0137</b>	<b>0.0137</b>	<b>0.0000</b>	<b>41.9714</b>	<b>41.9714</b>	<b>0.0109</b>	<b>0.0000</b>	<b>42.2445</b>

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**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0354	0.3337	0.2601	4.2000e-004		0.0178	0.0178		0.0166	0.0166	0.0000	36.9323	36.9323	0.0111	0.0000	37.2088
<b>Total</b>	<b>0.0354</b>	<b>0.3337</b>	<b>0.2601</b>	<b>4.2000e-004</b>		<b>0.0178</b>	<b>0.0178</b>		<b>0.0166</b>	<b>0.0166</b>	<b>0.0000</b>	<b>36.9323</b>	<b>36.9323</b>	<b>0.0111</b>	<b>0.0000</b>	<b>37.2088</b>



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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	5.7800e-003	1.5800e-003	1.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.5165	0.5165	1.0000e-004	0.0000	0.5190
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.6000e-004</b>	<b>5.7800e-003</b>	<b>1.5800e-003</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5165</b>	<b>0.5165</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.5190</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6000e-003	0.2054	0.2787	4.2000e-004		0.0120	0.0120		0.0124	0.0124	0.0000	36.9322	36.9322	0.0111	0.0000	37.2087
<b>Total</b>	<b>3.6000e-003</b>	<b>0.2054</b>	<b>0.2787</b>	<b>4.2000e-004</b>		<b>0.0120</b>	<b>0.0120</b>		<b>0.0124</b>	<b>0.0124</b>	<b>0.0000</b>	<b>36.9322</b>	<b>36.9322</b>	<b>0.0111</b>	<b>0.0000</b>	<b>37.2087</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6000e-004	5.7800e-003	1.5800e-003	1.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	0.5165	0.5165	1.0000e-004	0.0000	0.5190
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.6000e-004</b>	<b>5.7800e-003</b>	<b>1.5800e-003</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5165</b>	<b>0.5165</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.5190</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.4841	0.4027	6.7000e-004		0.0247	0.0247		0.0230	0.0230	0.0000	57.3809	57.3809	0.0174	0.0000	57.8158
<b>Total</b>	<b>0.0506</b>	<b>0.4841</b>	<b>0.4027</b>	<b>6.7000e-004</b>		<b>0.0247</b>	<b>0.0247</b>		<b>0.0230</b>	<b>0.0230</b>	<b>0.0000</b>	<b>57.3809</b>	<b>57.3809</b>	<b>0.0174</b>	<b>0.0000</b>	<b>57.8158</b>

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**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	8.8300e-003	2.2800e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.8202	0.8202	1.5000e-004	0.0000	0.8239
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.2000e-004</b>	<b>8.8300e-003</b>	<b>2.2800e-003</b>	<b>1.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8202</b>	<b>0.8202</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.8239</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3200e-003	0.3356	0.4430	6.7000e-004		0.0201	0.0201		0.0207	0.0207	0.0000	57.3809	57.3809	0.0174	0.0000	57.8157
<b>Total</b>	<b>7.3200e-003</b>	<b>0.3356</b>	<b>0.4430</b>	<b>6.7000e-004</b>		<b>0.0201</b>	<b>0.0201</b>		<b>0.0207</b>	<b>0.0207</b>	<b>0.0000</b>	<b>57.3809</b>	<b>57.3809</b>	<b>0.0174</b>	<b>0.0000</b>	<b>57.8157</b>

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**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	8.8300e-003	2.2800e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.8202	0.8202	1.5000e-004	0.0000	0.8239
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.2000e-004</b>	<b>8.8300e-003</b>	<b>2.2800e-003</b>	<b>1.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8202</b>	<b>0.8202</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.8239</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6600e-003	0.0232	0.0206	4.0000e-005		1.1600e-003	1.1600e-003		1.1000e-003	1.1000e-003	0.0000	3.5781	3.5781	9.2000e-004	0.0000	3.6011
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.6600e-003</b>	<b>0.0232</b>	<b>0.0206</b>	<b>4.0000e-005</b>		<b>1.1600e-003</b>	<b>1.1600e-003</b>		<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>3.5781</b>	<b>3.5781</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>3.6011</b>

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**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.0500e-003	0.0199	0.0257	4.0000e-005		1.0400e-003	1.0400e-003		1.0500e-003	1.0500e-003	0.0000	3.5781	3.5781	9.2000e-004	0.0000	3.6011
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.0500e-003</b>	<b>0.0199</b>	<b>0.0257</b>	<b>4.0000e-005</b>		<b>1.0400e-003</b>	<b>1.0400e-003</b>		<b>1.0500e-003</b>	<b>1.0500e-003</b>	<b>0.0000</b>	<b>3.5781</b>	<b>3.5781</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>3.6011</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N





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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	9.99999e+006	3,268.0850	0.1315	0.0272	3,279.4837
<b>Total</b>		<b>3,268.0850</b>	<b>0.1315</b>	<b>0.0272</b>	<b>3,279.4837</b>

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**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	9.99999e+006	3,268.0850	0.1315	0.0272	3,279.4837
<b>Total</b>		<b>3,268.0850</b>	<b>0.1315</b>	<b>0.0272</b>	<b>3,279.4837</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0176	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	0.0176	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	8.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	4.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	0.0000	8.0000e-005
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-005</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0157					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>0.0176</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0476	3.4000e-004	1.0000e-005	0.0586
Unmitigated	0.0476	3.4000e-004	1.0000e-005	0.0586

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.0104 / 0	0.0476	3.4000e-004	1.0000e-005	0.0586
<b>Total</b>		<b>0.0476</b>	<b>3.4000e-004</b>	<b>1.0000e-005</b>	<b>0.0586</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0589	3.4800e-003	0.0000	0.1458
Unmitigated	0.0589	3.4800e-003	0.0000	0.1458

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**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0.29	0.0589	3.4800e-003	0.0000	0.1458
<b>Total</b>		<b>0.0589</b>	<b>3.4800e-003</b>	<b>0.0000</b>	<b>0.1458</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Mission Trails Booster Station - San Diego County APCD Air District, Summer

**Mission Trails Booster Station**  
**San Diego County APCD Air District, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	4.03	1000sqft	0.09	4,025.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information. For HRA vendor and haul truck trip length was assumed for onsite diesel emissions only.

On-road Fugitive Dust - CalEEMod Defaults.

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Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use represents grid supplied only. All other energy use emissions are calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	30.00
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.21	2,484.47
tblEnergyUse	T24NG	4.31	0.00
tblGrading	AcresOfGrading	45.00	1.10
tblGrading	MaterialExported	0.00	700,000.00
tblGrading	MaterialImported	0.00	112,000.00
tblLandUse	LandUseSquareFeet	4,030.00	4,025.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00

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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	5.00	0.29
tblTripsAndVMT	HaulingTripLength	20.00	0.19
tblTripsAndVMT	HaulingTripNumber	101,500.00	36,750.00
tblTripsAndVMT	VendorTripLength	6.60	0.19
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	0.00

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tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	931,937.50	10,400.00

## 2.0 Emissions Summary

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Mission Trails Booster Station - San Diego County APCD Air District, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.4000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-004</b>

## Mission Trails Booster Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.02	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	46.81

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/9/2019	6/19/2019	5	30	
2	Trenching	Trenching	6/20/2019	8/28/2019	5	50	
3	Building Construction	Building Construction	8/29/2019	7/15/2020	5	230	
4	Paving	Paving	7/16/2020	7/22/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Mission Trails Booster Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Excavators	1	4.00	158	0.38
Trenching	Off-Highway Trucks	1	4.00	402	0.38
Trenching	Rollers	1	4.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Welders	2	4.00	46	0.45
Building Construction	Aerial Lifts	2	4.00	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Rollers	1	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	4	4.00	9	0.56
Paving	Crushing/Proc. Equipment	1	4.00	85	0.78
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	4.00	130	0.42
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Mission Trails Booster Station - San Diego County APCD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	0.00	0.00	36,750.00	0.00	6.60	0.19	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	2.00	0.00	0.00	0.19	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	0.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8644	0.0000	9.8644	3.8904	0.0000	3.8904			0.0000			0.0000
Off-Road	2.1821	23.6360	13.3492	0.0282		1.0593	1.0593		0.9841	0.9841		2,776.415 2	2,776.415 2	0.8019		2,796.461 8
<b>Total</b>	<b>2.1821</b>	<b>23.6360</b>	<b>13.3492</b>	<b>0.0282</b>	<b>9.8644</b>	<b>1.0593</b>	<b>10.9237</b>	<b>3.8904</b>	<b>0.9841</b>	<b>4.8745</b>		<b>2,776.415 2</b>	<b>2,776.415 2</b>	<b>0.8019</b>		<b>2,796.461 8</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4641	125.1713	16.8976	0.1372	0.2290	0.1072	0.3363	0.0651	0.1026	0.1676		14,902.8737	14,902.8737	2.6777		14,969.8161
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.4641</b>	<b>125.1713</b>	<b>16.8976</b>	<b>0.1372</b>	<b>0.2290</b>	<b>0.1072</b>	<b>0.3363</b>	<b>0.0651</b>	<b>0.1026</b>	<b>0.1676</b>		<b>14,902.8737</b>	<b>14,902.8737</b>	<b>2.6777</b>		<b>14,969.8161</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.4390	0.0000	4.4390	1.7507	0.0000	1.7507			0.0000			0.0000
Off-Road	-0.9322	-0.7270	16.7903	0.0282		2.1900e-003	2.1900e-003		0.0969	0.0969	0.0000	2,776.4152	2,776.4152	0.8019		2,796.4618
<b>Total</b>	<b>-0.9322</b>	<b>-0.7270</b>	<b>16.7903</b>	<b>0.0282</b>	<b>4.4390</b>	<b>2.1900e-003</b>	<b>4.4412</b>	<b>1.7507</b>	<b>0.0969</b>	<b>1.8476</b>	<b>0.0000</b>	<b>2,776.4152</b>	<b>2,776.4152</b>	<b>0.8019</b>		<b>2,796.4618</b>

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**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4641	125.1713	16.8976	0.1372	0.2290	0.1072	0.3363	0.0651	0.1026	0.1676		14,902.87 37	14,902.87 37	2.6777		14,969.81 61
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.4641</b>	<b>125.1713</b>	<b>16.8976</b>	<b>0.1372</b>	<b>0.2290</b>	<b>0.1072</b>	<b>0.3363</b>	<b>0.0651</b>	<b>0.1026</b>	<b>0.1676</b>		<b>14,902.87 37</b>	<b>14,902.87 37</b>	<b>2.6777</b>		<b>14,969.81 61</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4476	11.8121	10.5446	0.0193		0.6395	0.6395		0.6055	0.6055		1,850.622 9	1,850.622 9	0.4817		1,862.664 3
<b>Total</b>	<b>1.4476</b>	<b>11.8121</b>	<b>10.5446</b>	<b>0.0193</b>		<b>0.6395</b>	<b>0.6395</b>		<b>0.6055</b>	<b>0.6055</b>		<b>1,850.622 9</b>	<b>1,850.622 9</b>	<b>0.4817</b>		<b>1,862.664 3</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3484	9.6825	12.4391	0.0193		0.5358	0.5358		0.5469	0.5469	0.0000	1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>0.3484</b>	<b>9.6825</b>	<b>12.4391</b>	<b>0.0193</b>		<b>0.5358</b>	<b>0.5358</b>		<b>0.5469</b>	<b>0.5469</b>	<b>0.0000</b>	<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7950	7.4998	5.8450	9.4700e-003		0.4009	0.4009		0.3728	0.3728		914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.7950</b>	<b>7.4998</b>	<b>5.8450</b>	<b>9.4700e-003</b>		<b>0.4009</b>	<b>0.4009</b>		<b>0.3728</b>	<b>0.3728</b>		<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>



Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.3800e-003	0.1314	0.0318	1.2000e-004	4.0000e-004	1.5000e-004	5.5000e-004	1.2000e-004	1.4000e-004	2.6000e-004		13.4256	13.4256	2.3800e-003		13.4850
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.3800e-003</b>	<b>0.1314</b>	<b>0.0318</b>	<b>1.2000e-004</b>	<b>4.0000e-004</b>	<b>1.5000e-004</b>	<b>5.5000e-004</b>	<b>1.2000e-004</b>	<b>1.4000e-004</b>	<b>2.6000e-004</b>		<b>13.4256</b>	<b>13.4256</b>	<b>2.3800e-003</b>		<b>13.4850</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0809	4.6153	6.2635	9.4700e-003		0.2694	0.2694		0.2788	0.2788	0.0000	914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.0809</b>	<b>4.6153</b>	<b>6.2635</b>	<b>9.4700e-003</b>		<b>0.2694</b>	<b>0.2694</b>		<b>0.2788</b>	<b>0.2788</b>	<b>0.0000</b>	<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.3800e-003	0.1314	0.0318	1.2000e-004	4.0000e-004	1.5000e-004	5.5000e-004	1.2000e-004	1.4000e-004	2.6000e-004		13.4256	13.4256	2.3800e-003		13.4850
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.3800e-003</b>	<b>0.1314</b>	<b>0.0318</b>	<b>1.2000e-004</b>	<b>4.0000e-004</b>	<b>1.5000e-004</b>	<b>5.5000e-004</b>	<b>1.2000e-004</b>	<b>1.4000e-004</b>	<b>2.6000e-004</b>		<b>13.4256</b>	<b>13.4256</b>	<b>2.3800e-003</b>		<b>13.4850</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7182	6.8670	5.7121	9.4700e-003		0.3501	0.3501		0.3256	0.3256		897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.7182</b>	<b>6.8670</b>	<b>5.7121</b>	<b>9.4700e-003</b>		<b>0.3501</b>	<b>0.3501</b>		<b>0.3256</b>	<b>0.3256</b>		<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9700e-003	0.1267	0.0290	1.2000e-004	4.0000e-004	1.0000e-004	5.0000e-004	1.2000e-004	9.0000e-005	2.1000e-004		13.4606	13.4606	2.2000e-003		13.5155
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.9700e-003</b>	<b>0.1267</b>	<b>0.0290</b>	<b>1.2000e-004</b>	<b>4.0000e-004</b>	<b>1.0000e-004</b>	<b>5.0000e-004</b>	<b>1.2000e-004</b>	<b>9.0000e-005</b>	<b>2.1000e-004</b>		<b>13.4606</b>	<b>13.4606</b>	<b>2.2000e-003</b>		<b>13.5155</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1039	4.7607	6.2835	9.4700e-003		0.2852	0.2852		0.2934	0.2934	0.0000	897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.1039</b>	<b>4.7607</b>	<b>6.2835</b>	<b>9.4700e-003</b>		<b>0.2852</b>	<b>0.2852</b>		<b>0.2934</b>	<b>0.2934</b>	<b>0.0000</b>	<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9700e-003	0.1267	0.0290	1.2000e-004	4.0000e-004	1.0000e-004	5.0000e-004	1.2000e-004	9.0000e-005	2.1000e-004		13.4606	13.4606	2.2000e-003		13.5155
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.9700e-003</b>	<b>0.1267</b>	<b>0.0290</b>	<b>1.2000e-004</b>	<b>4.0000e-004</b>	<b>1.0000e-004</b>	<b>5.0000e-004</b>	<b>1.2000e-004</b>	<b>9.0000e-005</b>	<b>2.1000e-004</b>		<b>13.4606</b>	<b>13.4606</b>	<b>2.2000e-003</b>		<b>13.5155</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0658	9.2956	8.2338	0.0168		0.4655	0.4655		0.4401	0.4401		1,577.6622	1,577.6622	0.4052		1,587.7911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0658</b>	<b>9.2956</b>	<b>8.2338</b>	<b>0.0168</b>		<b>0.4655</b>	<b>0.4655</b>		<b>0.4401</b>	<b>0.4401</b>		<b>1,577.6622</b>	<b>1,577.6622</b>	<b>0.4052</b>		<b>1,587.7911</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4191	7.9508	10.2619	0.0168		0.4149	0.4149		0.4192	0.4192	0.0000	1,577.662 2	1,577.662 2	0.4052		1,587.7911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4191</b>	<b>7.9508</b>	<b>10.2619</b>	<b>0.0168</b>		<b>0.4149</b>	<b>0.4149</b>		<b>0.4192</b>	<b>0.4192</b>	<b>0.0000</b>	<b>1,577.662</b> <b>2</b>	<b>1,577.662</b> <b>2</b>	<b>0.4052</b>		<b>1,587.791</b> <b>1</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Mission Trails Booster Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



Mission Trails Booster Station - San Diego County APCD Air District, Summer

**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Electric Lawnmower
- Use Electric Leafblower
- Use Electric Chainsaw
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

Mission Trails Booster Station - San Diego County APCD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Unmitigated	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>		<b>9.4000e-004</b>

Mission Trails Booster Station - San Diego County APCD Air District, Summer

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>		<b>5.0000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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Fire Pumps and Emergency Generators

Mission Trails Booster Station - San Diego County APCD Air District, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Mission Trails Booster Station - San Diego County APCD Air District, Winter

**Mission Trails Booster Station**  
**San Diego County APCD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	4.03	1000sqft	0.09	4,025.00	1

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2021
<b>Utility Company</b>	San Diego Gas & Electric				
<b>CO2 Intensity (lb/MW hr)</b>	720.49	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - See Section 1.3, Project Description.

Land Use - See Section 1.3, Project Description. Based on design documents provided by the City.

Construction Phase - Based on information provided by the City.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Off-road Equipment - See Section 7.2.1 for Construction Details.

Trips and VMT - See Section 7.2.1 for trip information. For HRA vendor and haul truck trip length was assumed for onsite diesel emissions only.

On-road Fugitive Dust - CalEEMod Defaults.

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

Demolition - No demolition of structures anticipated.

Grading - See Section 7.2.1 for Construction Details.

Architectural Coating - No architectural coatings.

Vehicle Trips - See Section 7.2.2 for mobile source information.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Vehicle Emission Factors - CalEEMod defaults.

Road Dust - CalEEMod defaults.

Woodstoves - No hearths.

Consumer Products - CalEEMod defaults.

Area Coating - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings.

Landscape Equipment - There is no landscaping for this project.

Energy Use - Energy use represents grid supplied only. All other energy use emissions are calculated outside of CalEEMod.

Water And Wastewater - Based on City provided information.

Solid Waste - EPA waste generation of 4.46 lb/person/day

Land Use Change - No land use change.

Sequestration - No land use change.

Construction Off-road Equipment Mitigation - Per MM1, all construction equipment will be at least Tier 3. See Section 7.2.1 Construction Impacts for more information.

Mobile Land Use Mitigation - No traffic mitigation.

Mobile Commute Mitigation - No traffic mitigation.

Area Mitigation - In accordance with SDAPCD Rule 67.0.1 for interior and exterior architectural coatings. Electric landscape equipment is implemented to show no landscaping equipment as model will not take out the summer days.

Energy Mitigation - No energy mitigation.

Water Mitigation - No water use mitigation.

Waste Mitigation - No solid waste mitigation.

Stationary Sources - Emergency Generators and Fire Pumps - No stationary sources.

Stationary Sources - Process Boilers - No stationary sources.



Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	230.00
tblConstructionPhase	NumDays	2.00	30.00
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	T24E	1.21	2,484.47
tblEnergyUse	T24NG	4.31	0.00
tblGrading	AcresOfGrading	45.00	1.10
tblGrading	MaterialExported	0.00	700,000.00
tblGrading	MaterialImported	0.00	112,000.00
tblLandUse	LandUseSquareFeet	4,030.00	4,025.00
tblLandUse	Population	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00



Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	6.00	4.00

Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	5.00	0.29
tblTripsAndVMT	HaulingTripLength	20.00	0.19
tblTripsAndVMT	HaulingTripNumber	101,500.00	36,750.00
tblTripsAndVMT	VendorTripLength	6.60	0.19
tblTripsAndVMT	VendorTripNumber	1.00	2.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripLength	16.80	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	2.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	14.70	0.00

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	931,937.50	10,400.00

## 2.0 Emissions Summary

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Mission Trails Booster Station - San Diego County APCD Air District, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>9.4000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-004</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.02	0.00	41.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.45	45.45	0.00	0.00	46.81

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/9/2019	6/19/2019	5	30	
2	Trenching	Trenching	6/20/2019	8/28/2019	5	50	
3	Building Construction	Building Construction	8/29/2019	7/15/2020	5	230	
4	Paving	Paving	7/16/2020	7/22/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Concrete/Industrial Saws	1	4.00	81	0.73
Trenching	Excavators	1	4.00	158	0.38
Trenching	Off-Highway Trucks	1	4.00	402	0.38
Trenching	Rollers	1	4.00	80	0.38
Trenching	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Trenching	Welders	2	4.00	46	0.45
Building Construction	Aerial Lifts	2	4.00	63	0.31
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Rollers	1	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	4	4.00	9	0.56
Paving	Crushing/Proc. Equipment	1	4.00	85	0.78
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	1	4.00	130	0.42
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Mission Trails Booster Station - San Diego County APCD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	0.00	0.00	36,750.00	0.00	6.60	0.19	LD_Mix	HDT_Mix	HHDT
Trenching	8	0.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	0.00	2.00	0.00	0.00	0.19	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	0.00	0.00	0.00	0.00	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

**3.2 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8644	0.0000	9.8644	3.8904	0.0000	3.8904			0.0000			0.0000
Off-Road	2.1821	23.6360	13.3492	0.0282		1.0593	1.0593		0.9841	0.9841		2,776.415 2	2,776.415 2	0.8019		2,796.461 8
<b>Total</b>	<b>2.1821</b>	<b>23.6360</b>	<b>13.3492</b>	<b>0.0282</b>	<b>9.8644</b>	<b>1.0593</b>	<b>10.9237</b>	<b>3.8904</b>	<b>0.9841</b>	<b>4.8745</b>		<b>2,776.415 2</b>	<b>2,776.415 2</b>	<b>0.8019</b>		<b>2,796.461 8</b>



Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7692	120.3413	23.1393	0.1208	0.2290	0.1397	0.3687	0.0651	0.1336	0.1987		13,118.7994	13,118.7994	3.0215		13,194.3377
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.7692</b>	<b>120.3413</b>	<b>23.1393</b>	<b>0.1208</b>	<b>0.2290</b>	<b>0.1397</b>	<b>0.3687</b>	<b>0.0651</b>	<b>0.1336</b>	<b>0.1987</b>		<b>13,118.7994</b>	<b>13,118.7994</b>	<b>3.0215</b>		<b>13,194.3377</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.4390	0.0000	4.4390	1.7507	0.0000	1.7507			0.0000			0.0000
Off-Road	-0.9322	-0.7270	16.7903	0.0282		2.1900e-003	2.1900e-003		0.0969	0.0969	0.0000	2,776.4152	2,776.4152	0.8019		2,796.4618
<b>Total</b>	<b>-0.9322</b>	<b>-0.7270</b>	<b>16.7903</b>	<b>0.0282</b>	<b>4.4390</b>	<b>2.1900e-003</b>	<b>4.4412</b>	<b>1.7507</b>	<b>0.0969</b>	<b>1.8476</b>	<b>0.0000</b>	<b>2,776.4152</b>	<b>2,776.4152</b>	<b>0.8019</b>		<b>2,796.4618</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.2 Grading - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.7692	120.3413	23.1393	0.1208	0.2290	0.1397	0.3687	0.0651	0.1336	0.1987		13,118.7994	13,118.7994	3.0215		13,194.3377
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>2.7692</b>	<b>120.3413</b>	<b>23.1393</b>	<b>0.1208</b>	<b>0.2290</b>	<b>0.1397</b>	<b>0.3687</b>	<b>0.0651</b>	<b>0.1336</b>	<b>0.1987</b>		<b>13,118.7994</b>	<b>13,118.7994</b>	<b>3.0215</b>		<b>13,194.3377</b>

**3.3 Trenching - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4476	11.8121	10.5446	0.0193		0.6395	0.6395		0.6055	0.6055		1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>1.4476</b>	<b>11.8121</b>	<b>10.5446</b>	<b>0.0193</b>		<b>0.6395</b>	<b>0.6395</b>		<b>0.6055</b>	<b>0.6055</b>		<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3484	9.6825	12.4391	0.0193		0.5358	0.5358		0.5469	0.5469	0.0000	1,850.6229	1,850.6229	0.4817		1,862.6643
<b>Total</b>	<b>0.3484</b>	<b>9.6825</b>	<b>12.4391</b>	<b>0.0193</b>		<b>0.5358</b>	<b>0.5358</b>		<b>0.5469</b>	<b>0.5469</b>	<b>0.0000</b>	<b>1,850.6229</b>	<b>1,850.6229</b>	<b>0.4817</b>		<b>1,862.6643</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.3 Trenching - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7950	7.4998	5.8450	9.4700e-003		0.4009	0.4009		0.3728	0.3728		914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.7950</b>	<b>7.4998</b>	<b>5.8450</b>	<b>9.4700e-003</b>		<b>0.4009</b>	<b>0.4009</b>		<b>0.3728</b>	<b>0.3728</b>		<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.7200e-003	0.1275	0.0392	1.1000e-004	4.0000e-004	1.8000e-004	5.8000e-004	1.2000e-004	1.7000e-004	2.9000e-004		11.9223	11.9223	2.6800e-003		11.9892
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.7200e-003</b>	<b>0.1275</b>	<b>0.0392</b>	<b>1.1000e-004</b>	<b>4.0000e-004</b>	<b>1.8000e-004</b>	<b>5.8000e-004</b>	<b>1.2000e-004</b>	<b>1.7000e-004</b>	<b>2.9000e-004</b>		<b>11.9223</b>	<b>11.9223</b>	<b>2.6800e-003</b>		<b>11.9892</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0809	4.6153	6.2635	9.4700e-003		0.2694	0.2694		0.2788	0.2788	0.0000	914.8508	914.8508	0.2740		921.7000
<b>Total</b>	<b>0.0809</b>	<b>4.6153</b>	<b>6.2635</b>	<b>9.4700e-003</b>		<b>0.2694</b>	<b>0.2694</b>		<b>0.2788</b>	<b>0.2788</b>	<b>0.0000</b>	<b>914.8508</b>	<b>914.8508</b>	<b>0.2740</b>		<b>921.7000</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.7200e-003	0.1275	0.0392	1.1000e-004	4.0000e-004	1.8000e-004	5.8000e-004	1.2000e-004	1.7000e-004	2.9000e-004		11.9223	11.9223	2.6800e-003		11.9892
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.7200e-003</b>	<b>0.1275</b>	<b>0.0392</b>	<b>1.1000e-004</b>	<b>4.0000e-004</b>	<b>1.8000e-004</b>	<b>5.8000e-004</b>	<b>1.2000e-004</b>	<b>1.7000e-004</b>	<b>2.9000e-004</b>		<b>11.9223</b>	<b>11.9223</b>	<b>2.6800e-003</b>		<b>11.9892</b>

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7182	6.8670	5.7121	9.4700e-003		0.3501	0.3501		0.3256	0.3256		897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.7182</b>	<b>6.8670</b>	<b>5.7121</b>	<b>9.4700e-003</b>		<b>0.3501</b>	<b>0.3501</b>		<b>0.3256</b>	<b>0.3256</b>		<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e-003	0.1230	0.0356	1.1000e-004	4.0000e-004	1.2000e-004	5.2000e-004	1.2000e-004	1.1000e-004	2.3000e-004		11.9450	11.9450	2.4700e-003		12.0068
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.2800e-003</b>	<b>0.1230</b>	<b>0.0356</b>	<b>1.1000e-004</b>	<b>4.0000e-004</b>	<b>1.2000e-004</b>	<b>5.2000e-004</b>	<b>1.2000e-004</b>	<b>1.1000e-004</b>	<b>2.3000e-004</b>		<b>11.9450</b>	<b>11.9450</b>	<b>2.4700e-003</b>		<b>12.0068</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1039	4.7607	6.2835	9.4700e-003		0.2852	0.2852		0.2934	0.2934	0.0000	897.1864	897.1864	0.2720		903.9852
<b>Total</b>	<b>0.1039</b>	<b>4.7607</b>	<b>6.2835</b>	<b>9.4700e-003</b>		<b>0.2852</b>	<b>0.2852</b>		<b>0.2934</b>	<b>0.2934</b>	<b>0.0000</b>	<b>897.1864</b>	<b>897.1864</b>	<b>0.2720</b>		<b>903.9852</b>

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.4 Building Construction - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e-003	0.1230	0.0356	1.1000e-004	4.0000e-004	1.2000e-004	5.2000e-004	1.2000e-004	1.1000e-004	2.3000e-004		11.9450	11.9450	2.4700e-003		12.0068
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>3.2800e-003</b>	<b>0.1230</b>	<b>0.0356</b>	<b>1.1000e-004</b>	<b>4.0000e-004</b>	<b>1.2000e-004</b>	<b>5.2000e-004</b>	<b>1.2000e-004</b>	<b>1.1000e-004</b>	<b>2.3000e-004</b>		<b>11.9450</b>	<b>11.9450</b>	<b>2.4700e-003</b>		<b>12.0068</b>

**3.5 Paving - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0658	9.2956	8.2338	0.0168		0.4655	0.4655		0.4401	0.4401		1,577.6622	1,577.6622	0.4052		1,587.7911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0658</b>	<b>9.2956</b>	<b>8.2338</b>	<b>0.0168</b>		<b>0.4655</b>	<b>0.4655</b>		<b>0.4401</b>	<b>0.4401</b>		<b>1,577.6622</b>	<b>1,577.6622</b>	<b>0.4052</b>		<b>1,587.7911</b>



Mission Trails Booster Station - San Diego County APCD Air District, Winter

**3.5 Paving - 2020**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4191	7.9508	10.2619	0.0168		0.4149	0.4149		0.4192	0.4192	0.0000	1,577.662 2	1,577.662 2	0.4052		1,587.7911
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.4191</b>	<b>7.9508</b>	<b>10.2619</b>	<b>0.0168</b>		<b>0.4149</b>	<b>0.4149</b>		<b>0.4192</b>	<b>0.4192</b>	<b>0.0000</b>	<b>1,577.662</b> <b>2</b>	<b>1,577.662</b> <b>2</b>	<b>0.4052</b>		<b>1,587.791</b> <b>1</b>

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**3.5 Paving - 2020**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Mission Trails Booster Station - San Diego County APCD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

Mission Trails Booster Station - San Diego County APCD Air District, Winter

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0964	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
Unmitigated	0.0964	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		8.8000e-004	8.8000e-004	0.0000		9.4000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>		<b>9.4000e-004</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0102					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0861					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.8000e-004	4.8000e-004	0.0000		5.0000e-004
<b>Total</b>	<b>0.0964</b>	<b>0.0000</b>	<b>2.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>4.8000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>		<b>5.0000e-004</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

## Mission Trails Booster Station - San Diego County APCD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

---



HARP2 - HRACalc (dated 17023) 12/21/2017 3:31:59 PM - Output Log

GLCs loaded successfully  
Pollutants loaded successfully  
Pathway receptors loaded successfully  
\*\*\*\*\*

RISK SCENARIO SETTINGS

Receptor Type: Resident  
Scenario: All  
Calculation Method: Derived

\*\*\*\*\*  
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25  
Total Exposure Duration: 3

Exposure Duration Bin Distribution  
3rd Trimester Bin: 0.25  
0<2 Years Bin: 2  
2<9 Years Bin: 1  
2<16 Years Bin: 0  
16<30 Years Bin: 0  
16 to 70 Years Bin: 0

\*\*\*\*\*  
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True  
Soil: True  
Dermal: True  
Mother's milk: True  
Water: False  
Fish: False  
Homegrown crops: False  
Beef: False  
Dairy: False  
Pig: False  
Chicken: False  
Egg: False

\*\*\*\*\*  
INHALATION

Daily breathing rate: LongTerm24HR

\*\*Worker Adjustment Factors\*\*  
Worker adjustment factors enabled: NO

\*\*Fraction at time at home\*\*  
3rd Trimester to 16 years: OFF  
16 years to 70 years: ON

\*\*\*\*\*  
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05  
Soil mixing depth (m): 0.01  
Dermal climate: Mixed

\*\*\*\*\*  
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to:

C:\Users\apoll\Desktop\HARP2\North City\North City\hra\CONST-25CancerRisk.csv

Cancer risk total by receptor saved to:

C:\Users\apoll\Desktop\HARP2\North City\North City\hra\CONST-25CancerRiskSumByRec.csv

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to:

C:\Users\apoll\Desktop\HARP2\North City\North City\hra\CONST-25NCChronicRisk.csv

Chronic risk total by receptor saved to:

C:\Users\apoll\Desktop\HARP2\North City\North City\hra\CONST-25NCChronicRiskSumByRec.csv

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to:

C:\Users\apoll\Desktop\HARP2\North City\North City\hra\CONST-25NCAcuteRisk.csv

Acute risk total by receptor saved to: C:\Users\apoll\Desktop\HARP2\North City\North City\hra\CONST-25NCAcuteRiskSumByRec.csv

HRA ran successfully

\*\*\* AERMOD - VERSION 16216r \*\*\*      \*\*\* C:\Users\apoll\Desktop\HARP2\North  
City\test2\test2.isc                      \*\*\*                      12/20/17  
\*\*\* AERMET - VERSION 16216 \*\*\*      \*\*\*  
\*\*\*                      10:09:48

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\*\*\* MODELOPTs:      RegDEFAULT    CONC    ELEV    RURAL    ADJ\_U\*

\*\*\*                      MODEL SETUP OPTIONS

SUMMARY                      \*\*\*

-----  
-----

\*\*Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

\*\*NO GAS DEPOSITION Data Provided.

\*\*NO PARTICLE DEPOSITION Data Provided.

\*\*Model Uses NO DRY DEPLETION.    DRYDPLT    =    F

\*\*Model Uses NO WET DEPLETION.    WETDPLT    =    F

\*\*Model Uses RURAL Dispersion Only.

\*\*Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.

2. Model Accounts for ELEVated Terrain Effects.

3. Use Calms Processing Routine.

4. Use Missing Data Processing Routine.

5. No Exponential Decay.

\*\*Other Options Specified:

ADJ\_U\*    - Use ADJ\_U\* BETA option for SBL in AERMET

TEMP\_Sub - Meteorological data includes TEMP substitutions

\*\*Model Assumes No FLAGPOLE Receptor Heights.

\*\*The User Specified a Pollutant Type of:    PM\_10

\*\*Model Calculates 1 Short Term Average(s) of:    1-HR

and Calculates PERIOD Averages

\*\*This Run Includes:                      1 Source(s);                      1 Source Group(s); and  
818 Receptor(s)

with:                      0 POINT(s), including

0 POINTCAP(s) and                      0 POINTHOR(s)

and:                      0 VOLUME source(s)

and:                      1 AREA type source(s)

and:                      0 LINE source(s)

and:                      0 OPENPIT source(s)

and:                      0 BUOYANT LINE source(s) with                      0 line(s)

\*\*Model Set To Continue RUNning After the Setup Testing.

\*\*The AERMET Input Meteorological Data Version Date: 16216

\*\*Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor  
Model Outputs Tables of Highest Short Term Values by Receptor  
(RECTABLE Keyword)  
Model Outputs External File(s) of High Values for Plotting  
(PLOTFILE Keyword)  
Model Outputs Separate Summary File of High Ranked Values  
(SUMMFILE Keyword)

\*\*NOTE: The Following Flags May Appear Following CONC Values: c for  
Calm Hours  
m for  
Missing Hours  
b for  
Both Calm and Missing Hours

\*\*Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 132.89 ;  
Decay Coef. = 0.000 ; Rot. Angle = 0.0  
Emission Units = GRAMS/SEC  
; Emission Rate Unit Factor = 0.10000E+07  
Output Units = MICROGRAMS/M\*\*3

\*\*Approximate Storage Requirements of Model = 3.6 MB of RAM.

\*\*Detailed Error/Message File: test2.err  
\*\*File for Summary of Results: test2.sum



```

*** AERMOD - VERSION 16216r ***      *** C:\Users\apoll\Desktop\HARP2\North
City\test2\test2.isc                ***      12/20/17
*** AERMET - VERSION 16216 ***      ***
***      10:09:48

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*** MODELOPTs:      RegDEFAULT CONC ELEV RURAL ADJ_U*

```

\*\*\* UP TO THE FIRST 24 HOURS OF

METEOROLOGICAL DATA \*\*\*

```

Surface file:      ..\North City\SDAPCD Kearny MetData\KVR_2014_2016.SFC
Met Version:      16216
Profile file:      ..\North City\SDAPCD Kearny MetData\KVR_2014_2016.PFL
Surface format:    FREE
Profile format:    FREE
Surface station no.:      93107                Upper air station no.:
3190
Name: UNKNOWN                Name:
UNKNOWN                    Year: 2014                Year:
2014

```

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0
BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT					
14	01	01	1	01	-4.7	0.100	-9.000	-9.000	-999.	76.	18.8	0.43	
1.10	1.00	0.80	38.	10.0	282.9	10.0							
14	01	01	1	02	-10.8	0.144	-9.000	-9.000	-999.	131.	24.6	0.11	
1.10	1.00	1.76	78.	10.0	281.5	10.0							
14	01	01	1	03	-6.0	0.111	-9.000	-9.000	-999.	89.	20.7	0.43	
1.10	1.00	0.90	41.	10.0	281.5	10.0							
14	01	01	1	04	-14.8	0.178	-9.000	-9.000	-999.	180.	34.7	0.43	
1.10	1.00	1.40	52.	10.0	282.1	10.0							
14	01	01	1	05	-14.7	0.178	-9.000	-9.000	-999.	180.	34.7	0.51	
1.10	1.00	1.30	63.	10.0	281.2	10.0							
14	01	01	1	06	-2.3	0.077	-9.000	-9.000	-999.	57.	17.9	0.43	
1.10	1.00	0.50	52.	10.0	281.2	10.0							
14	01	01	1	07	-12.7	0.164	-9.000	-9.000	-999.	159.	31.0	0.43	
1.10	1.00	1.30	56.	10.0	281.6	10.0							
14	01	01	1	08	-10.4	0.167	-9.000	-9.000	-999.	163.	39.8	0.43	
1.10	0.49	1.30	40.	10.0	282.4	10.0							
14	01	01	1	09	44.2	-9.000	-9.000	-9.000	83.	-999.	-99999.0	0.49	
1.10	0.29	0.00	0.	10.0	286.4	10.0							
14	01	01	1	10	106.1	0.181	0.840	0.015	199.	186.	-5.0	0.51	
1.10	0.22	0.80	302.	10.0	289.4	10.0							
14	01	01	1	11	146.7	0.355	1.063	0.007	293.	507.	-27.2	0.51	
1.10	0.20	2.10	302.	10.0	291.4	10.0							
14	01	01	1	12	165.4	0.299	1.223	0.008	395.	394.	-14.4	0.39	
1.10	0.19	1.80	343.	10.0	292.2	10.0							
14	01	01	1	13	161.9	0.287	1.333	0.007	522.	369.	-13.0	0.39	
1.10	0.19	1.70	338.	10.0	293.9	10.0							

14	01	01	1	14	137.4	0.360	1.381	0.009	683.	518.	-30.2	0.39
1.10	0.20	2.40	334.	10.0	294.9	10.0						
14	01	01	1	15	90.1	0.399	1.244	0.009	762.	605.	-62.9	0.51
1.10	0.23	2.60	319.	10.0	294.2	10.0						
14	01	01	1	16	27.3	0.323	0.844	0.009	783.	444.	-109.8	0.51
1.10	0.32	2.20	319.	10.0	293.4	10.0						
14	01	01	1	17	-19.1	0.224	-9.000	-9.000	-999.	259.	55.1	0.51
1.10	0.60	1.60	312.	10.0	291.4	10.0						
14	01	01	1	18	-7.3	0.125	-9.000	-9.000	-999.	111.	23.7	0.55
1.10	1.00	0.90	277.	10.0	288.9	10.0						
14	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.49
1.10	1.00	0.00	0.	10.0	287.6	10.0						
14	01	01	1	20	-4.3	0.096	-9.000	-9.000	-999.	71.	18.2	0.39
1.10	1.00	0.80	357.	10.0	286.5	10.0						
14	01	01	1	21	-2.6	0.080	-9.000	-9.000	-999.	55.	17.6	0.55
1.10	1.00	0.50	291.	10.0	285.0	10.0						
14	01	01	1	22	-12.0	0.159	-9.000	-9.000	-999.	152.	29.8	0.34
1.10	1.00	1.40	8.	10.0	283.6	10.0						
14	01	01	1	23	-2.8	0.081	-9.000	-9.000	-999.	57.	17.0	0.39
1.10	1.00	0.60	357.	10.0	282.4	10.0						
14	01	01	1	24	-6.7	0.118	-9.000	-9.000	-999.	97.	21.8	0.39
1.10	1.00	1.00	354.	10.0	282.2	10.0						

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
14	01	01	01	10.0	1	38.	0.80	282.9	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)





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City\test2\test2.isc \*\*\* 12/20/17  
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\*\*\* 10:09:48

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ\_U\*

\*\*\* THE SUMMARY OF

HIGHEST 1-HR RESULTS \*\*\*

MICROGRAMS/M\*\*3 \*\* CONC OF PM\_10 IN \*\*

DATE

NETWORK  
GROUP ID AVERAGE CONC (YYMMDDHH)  
RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID  
-----  
-----

ALL HIGH 1ST HIGH VALUE IS 1853.47178 ON 15010817: AT (  
493876.83, 3630479.91, 120.60, 484.00, 0.00) DC

\*\*\* RECEPTOR TYPES: GC = GRIDCART  
GP = GRIDPOLR  
DC = DISCCART  
DP = DISCPOLR

\*\*\* AERMOD - VERSION 16216r \*\*\* \*\*\* C:\Users\apoll\Desktop\HARP2\North  
City\test2\test2.isc \*\*\* 12/20/17  
\*\*\* AERMET - VERSION 16216 \*\*\* \*\*\*  
\*\*\* 10:09:48

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ\_U\*

\*\*\* Message Summary : AERMOD Model Execution \*\*\*

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)  
A Total of 1 Warning Message(s)  
A Total of 787 Informational Message(s)  
  
A Total of 26304 Hours Were Processed  
  
A Total of 645 Calm Hours Identified  
  
A Total of 142 Missing Hours Identified ( 0.54 Percent)

\*\*\*\*\* FATAL ERROR MESSAGES \*\*\*\*\*  
\*\*\* NONE \*\*\*

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*  
ME W187 83 MEOpen: ADJ\_U\* Option for Low Winds used in AERMET