# APPENDIX C

## *Air Quality and Greenhouse Gas Emissions Analysis Technical Report*

# Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Municipal Waterways Maintenance Plan City of San Diego, California PTS #616992

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# Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Municipal Waterways Maintenance Plan

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# ACRONYMS AND ABBREVIATIONS

| Acronym/ Abbreviation | Definition |
|---|---|
| °C | degrees Celsius |
| °F | degrees Fahrenheit |
| µg/$m^3$ | micrograms per cubic meter |
| AB | Assembly Bill |
| ATCM | airborne toxic control measure |
| BACT | best available control technology |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CALGreen | California's Green Building Standards |
| CalRecycle | California Department of Resources Recycling and Recovery |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CFC | chlorofluorocarbon |
| $CH_4$ | methane |
| City | City of San Diego |
| CNRA | California Natural Resources Agency |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| CPUC | California Public Utilities Commission |
| DPM | diesel particulate matter |
| EO | Executive Order |
| EPA | U.S. Environmental Protection Agency |
| FMP | Facility Maintenance Plan |
| GHG | greenhouse gas |
| GWP | global warming potential |
| HAP | hazardous air pollutant |
| HCFC | hydrochlorofluorocarbon |
| HFC | hydrofluorocarbon |
| IPCC | Intergovernmental Panel on Climate Change |
| LCFS | Low Carbon Fuel Standard |

| Acronym/ Abbreviation | Definition |
|---|---|
| LEED | Leadership in Energy and Environmental Design |
| MM- | mitigation measure |
| MMT | million metric tons |
| MT | metric ton |
| MWMP | Municipal Waterways Maintenance Plan |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NHTSA | National Highway Traffic Safety Administration |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | oxides of nitrogen |
| $O_3$ | ozone |
| OPR | Governor's Office of Planning and Research |
| PFC | perfluorocarbon |
| $PM_{10}$ | particulate matter with an aerodynamic diameter less than or equal to 10 microns |
| $PM_{2.5}$ | particulate matter with an aerodynamic diameter less than or equal to 2.5 microns |
| ppb | parts per billion |
| ppm | parts per million |
| RAQS | Regional Air Quality Strategy |
| RPS | Renewable Portfolio Standard |
| RTP | Regional Transportation Plan |
| SANDAG | San Diego Association of Governments |
| SB | Senate Bill |
| SCAQMD | South Coast Air Quality Management District |
| SCS | Sustainable Communities Strategy |
| SDAB | San Diego Air Basin |
| SDAPCD | San Diego County Air Pollution Control District |
| $SF_6$ | sulfur hexafluoride |
| SIP | State Implementation Plan |
| $SO_2$ | sulfur dioxide |
| $SO_4$ | sulfates |
| $SO_x$ | sulfur oxides |
| TAC | toxic air contaminant |
| TPA | transit priority area |
| TSW | Transportation & Storm Water Department |
| VOC | volatile organic compound |

# EXECUTIVE SUMMARY

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emission impacts associated with implementation of the City of San Diego's (City) *Municipal Waterways Maintenance Plan* (MWMP). This assessment uses the City's *California Environmental Quality Act Significance Determination Thresholds* (City of San Diego 2016), as well as significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.).

Under City Charter Section 26.1 and Council Policy 800-04, the City is responsible for maintaining adequate drainage facilities to remove storm water runoff in an efficient, economic, and environmentally and aesthetically acceptable manner for the protection of property and life. The City generally accepts responsibility for maintenance of public drainage facilities that are designed and constructed to City standards and located within a public street or drainage easement dedicated to the City. The City's storm water conveyance system serves to convey storm water flows to protect the life and property of its citizens from potential flooding within eight watersheds. The City's storm water conveyance system also serves to convey urban runoff from pervious and impervious surfaces and development such as irrigated landscape areas, driveways, and streets that flow into drainage facilities and, ultimately, to the ocean. Additionally, the City's storm water conveyance system helps to protect water quality, and open facilities, such as channels, can support natural resources, including wetland habitat. The City's jurisdiction spans eight watersheds: San Dieguito River, Los Peñasquitos, Mission Bay, San Diego River, Pueblo San Diego, Sweetwater, Otay, and Tijuana River. Facilities covered within the MWMP would be distributed throughout the eight watersheds, with the highest concentration of facilities in the San Diego River and Pueblo San Diego watersheds. Flood risk in these watersheds is higher due to lower or non-existent flood protection standards required at the time of development, as well as increase in runoff from the addition of impervious area from new development.

Although City Council Policy 700-44 (City of San Diego 1984) establishes the responsibility to protect private properties from flood damage to be with the property owners themselves, the City's Transportation & Storm Water Department is responsible for evaluating and conducting maintenance and repair of the public municipal storm water conveyance system throughout much of the City. To maintain the system's effectiveness, the proposed MWMP identifies specific activities, methods, and procedures that will guide ongoing maintenance and repair of facilities. The MWMP provides a comprehensive approach to identify and regulate maintenance and repair activities, primarily within open storm water facilities (i.e., those facilities located above ground and not within closed systems, such as pipes).

The MWMP air quality and GHG study area is located within the San Diego Air Basin (SDAB) and is under the jurisdiction of the San Diego County Air Pollution Control District (SDAPCD). Construction and operational criteria air pollutant and GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2, consistent with the SDAPCD guidance.

**Air Quality**

The air quality impact analysis evaluated the potential for adverse impacts to air quality due to construction emissions resulting from the MWMP. Impacts were evaluated for their significance based on the SDAPCD mass daily criteria air pollutant thresholds of significance (City of San Diego 2016). 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. Criteria air pollutants include ozone ($O_3$), nitrogen dioxide ($NO_2$), carbon monoxide (CO), sulfur dioxide ($SO_2$), coarse particulate matter ($PM_{10}$), fine particulate matter ($PM_{2.5}$), and lead. Pollutants that are evaluated include volatile organic compounds (VOCs) (also referred to as reactive organic gases), oxides of nitrogen ($NO_x$), CO, sulfur oxides ($SO_x$), $PM_{10}$, and $PM_{2.5}$. VOCs and $NO_x$ are important because they are precursors to $O_3$. Lead, which is a criteria air pollutant, was phased out of gasoline in the early 1990s. As a result of this phase-out, manufacturing facilities, which are separately regulated by the SDAPCD, became the largest source of lead emissions; therefore, lead is not included in this analysis.

***Air Quality Plan Consistency***

Implementation of the MWMP would not exceed the demographic growth forecasts in the San Diego Association of Governments (SANDAG) 2016 Regional Air Quality Strategy (RAQS). Based on these considerations, impacts related to the MWMP's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

***Exposure of Sensitive Receptors***

The MWMP would not negatively affect the level of service of intersections within the MWMP study area and would not significantly contribute to a CO hotspot. As such, potential MWMP-generated impacts associated with CO hotspots would be less than significant.

The use of diesel equipment would result in emissions of criteria air pollutants, which could adversely affect human health. Diesel equipment would also be subject to the California Air Resources Board (CARB) air toxic control measures for in-use off-road diesel fleets, which would minimize diesel particulate matter (DPM) emissions. No residual toxic air contaminants (TACs) emissions and corresponding cancer risk are anticipated after construction, and no long-term

sources of TAC emissions are anticipated during operation of the MWMP. Therefore, the exposure of MWMP-related TAC emission impacts to sensitive receptors would be less than significant.

Estimated maximum daily construction emissions would exceed the SDAPCD screening-level thresholds for $NO_x$ during construction of the maintenance activities and, therefore, would potentially contribute to adverse health effects related to ozone, which the SDAB is in nonattainment of. However, implementation of mitigation measure (MM-) AQ-1 would reduce MWMP-generated NOx emissions below the SDAPCD threshold and would reduce potential ozone-related health effect impacts to less than significant.

***Other Emissions (such as those leading to odors)***

Potential long-term sources of other emissions (such as those leading to odors) produced during implementation of the maintenance activities would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, which would disperse rapidly from the maintenance site and generally occur at magnitudes that would not affect substantial numbers of people. Impacts associated with other emissions (such as those leading to odors) would be less than significant.

***Cumulative Impacts***

Implementation of the MWMP's proposed maintenance activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). The MWMP would include separate maintenance activities that could occur concurrently. Maximum daily construction emissions were estimated to result from concurrent construction of a maximum of 10 maintenance activities. Estimated maximum daily construction emissions would exceed the SDAPCD screening-level thresholds for $NO_x$ during construction of the maintenance activities; estimated maximum daily construction emissions would not exceed the SDAPCD screening-level thresholds for VOC, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$ during maintenance activities.

In analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is listed as nonattainment for the state and federal ambient air quality standards. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SDAB. Therefore, a project that exceeds SDAPCD screening-level thresholds may also result in a cumulatively considerable contribution to an air quality impact. As discussed previously, estimated maximum daily construction emissions would exceed the SDAPCD screening-level thresholds for

$NO_x$ during construction of the maintenance activities; however, implementation of MM-AQ-1 would reduce $NO_x$ emissions below significance thresholds.

**Greenhouse Gas Emissions**

Global climate change is primarily considered a cumulative impact, but must also be evaluated on a project-level under CEQA. A project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions. GHGs are gases that absorb infrared radiation in the atmosphere. Principal GHGs regulated under state and federal law and regulations include carbon dioxide ($CO_2$), methane ($CH_4$), and nitrous oxide ($N_2O$). GHG emissions are measured in metric tons of $CO_2$ equivalent (MT $CO_2e$), which account for weighted global warming potential (GWP) factors for $CH_4$ and $N_2O$.

***MWMP-Generated Greenhouse Gas Emissions***

The City's Climate Action Plan (CAP) does not include a quantitative emissions threshold; however, emissions are included for disclosure. Maintenance activities included in the MWMP would produce 5,164 MT $CO_2e$ over the implementation period.

***Consistency with Applicable Greenhouse Gas Reduction Plans***

The MWMP would not require a change in land use and, therefore, is consistent with the buildout assumptions included in the CAP and Step 1 of the CAP consistency checklist. The MWMP would not require a permit of occupancy and therefore Step 2 is not applicable; however, a CAP consistency checklist is included in Appendix B for disclosure. The MWMP is consistent in Step 1; therefore, Step 3 is also not applicable. The MWMP is consistent with Strategies 1–5 of the CAP. While the MWMP would not itself divert 75% of the excavated soil from the landfill, the MWMP would not impede the City's ability to achieve its 75% waste diversion goal on a City-wide basis. The MWMP includes Environmental Protocols (EPs) EP-SW-1 through EP-SW-8, which would ensure that waste is diverted from the landfill to the maximum extent feasible. Thus, the MWMP would not impeded implementation with CAP goals and actions identified in Strategy 4.

# Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Municipal Waterways Maintenance Plan

# 1 INTRODUCTION

## 1.1 REPORT PURPOSE AND SCOPE

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the proposed City of San Diego's (City) *Municipal Waterways Maintenance Plan* (MWMP). This assessment uses the significance thresholds in the City's *California Environmental Quality Act Significance Determination Thresholds* (City of San Diego 2016) and Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), and is based on the emissions-based screening-level thresholds recommended by the San Diego Air Pollution Control District (SDAPCD) and other applicable thresholds of significance.

This introductory section provides a description of the MWMP and the MWMP study area. Section 2, Air Quality, describes the air quality-related environmental setting, regulatory setting, existing air quality conditions, and thresholds of significance and analysis methodology, and presents an air quality impact analysis per the City's CEQA Significance Determination Thresholds and Appendix G of the CEQA Guidelines. Section 3, Greenhouse Gas Emissions, follows the same format as Section 2 and similarly describes the GHG emissions-related environmental setting, regulatory setting, existing climate change conditions, and thresholds of significance and analysis methodology, and presents a GHG emissions impact analysis per the City's CEQA Significance Determination Thresholds and Appendix G of the CEQA Guidelines. Section 4, References Cited, includes a list of the references cited and relied upon in this report. Section 5, List of Preparers, includes a list of those who prepared this technical report.

## 1.2 REGIONAL AND LOCAL SETTING

The municipal separate storm sewer system (MS4 or storm water system) for the City is distributed throughout the 342-square-mile metropolitan area. In general, the MS4 conveys storm water runoff from natural and developed areas to receiving waters. The City's MS4 system is an interconnected system of constructed drains, pipes, and engineered channels that discharge to natural drainages and receiving waters. As a result, the physical characteristics vary with the individual components of the storm water system.

## 1.3 PROJECT DESCRIPTION

Under City Charter Section 26.1 and Council Policy 800-04, the City is responsible for maintaining adequate drainage facilities to remove storm water runoff in an efficient, economic, and environmentally and aesthetically acceptable manner for the protection of property and life (Figure 1, Regional Map). The City generally accepts responsibility for maintenance of public drainage facilities that are designed and constructed to City standards and located within a public street or drainage easement

dedicated to the City. The City's storm water conveyance system serves to convey storm water flows to protect the life and property of its citizens from potential flooding within eight watersheds (Figure 2, Vicinity Map). The City's storm water conveyance system also serves to convey urban runoff from pervious and impervious surfaces and development, such as irrigated landscape areas, driveways, and streets that flow into drainage facilities and, ultimately, to the ocean. Additionally, the City's storm water conveyance system helps to protect water quality, and open facilities, such as channels, can support natural resources, including wetland habitat.

The City's jurisdiction spans eight watersheds: San Dieguito River, Los Peñasquitos, Mission Bay, San Diego River, Pueblo San Diego, Sweetwater, Otay, and Tijuana River. In general, development in the City is concentrated on flat mesas and valleys interspersed with natural and urbanized canyon areas. Facilities covered within the MWMP would be distributed throughout the eight watersheds, with the highest concentration of facilities being in the San Diego River and Pueblo San Diego watersheds. Flood risk in these watersheds is higher due to lower or non-existent flood protection standards required at the time of development, as well as increase in runoff from the addition of impervious area from new development.

The following facilities comprise the City's storm water system:

- Approximately 50 miles of channels, ditches, and basins
- 48,561 drainage conveyance facilities (including storm drain pipes and channels)
- 55,334 structures (including inlets, outlets, cleanouts, and connectors)
- 3,724 drainage best management practice (BMP) facilities
- 85 Capital Improvement Program (CIP) facilities (outlets, BMPs, and stream restoration)

Although City Council Policy 700-44 (City of San Diego 1984) establishes the responsibility to protect private and public properties from flood damage to be with the property owners themselves, the City's Transportation & Storm Water Department (TSW) is responsible for evaluating and conducting maintenance and repair of the public municipal storm water conveyance system throughout much of the City. To maintain the system's effectiveness, the proposed MWMP identifies specific activities, methods, and procedures to guide ongoing maintenance and repair of facilities. The MWMP provides a comprehensive approach to identify and regulate maintenance and repair activities, primarily within open storm water facilities (i.e., those facilities located above ground and not within closed systems, such as pipes).

Maintenance and repairs are an important component of operating the storm water conveyance system and providing reliable flood risk reduction throughout the City. Many storm water facilities were originally designed to require ongoing maintenance and repair. For example, concrete-lined

trapezoidal channels are often designed to convey the 100-year storm event. However, if sediment accumulates in the channels, and vegetation establishes within the sediment, the conveyance capacity is often reduced, and adjacent developed properties are at greater risk of flooding. In other cases, storm water facilities damaged during large storm events require repair (e.g., replacement of broken concrete lining or dislodged riprap) to continue to provide safe storm water conveyance according to the original facility design. Finally, there are areas of the City where development or conditions have changed within the watershed, resulting in greater or faster storm water flows than predicted during the facility design, or the original design does not meet current standards. In these cases, a Capital Improvement Program project is often needed to address the potential flood risk that exists or erosion potential due to a design that no longer meets the needs of the surrounding area; however, maintenance (removal of accumulated vegetation and sediment) may help alleviate the flood risk on an interim basis until a capital project is designed and constructed.

Council Policy 800-04 states that the City will generally only accept responsibility for maintenance or repair of public drainage facilities that are designed and constructed to City standards and are located within a public street or drainage easement dedicated to the City (City of San Diego 2012). The MWMP is intended to only include storm water facilities, specifically open channels, detention basins, and drain structures that TSW has the responsibility to maintain. However, this responsibility is subject to verification at the time of maintenance and has not been verified for all facilities in this MWMP. In addition, Council Policy 700-44 encourages and establishes the responsibility for private property owners to implement flood control measures, such as the use of sandbags, to prevent and protect their property from flood damage (City of San Diego 1984).

The following are the primary objectives of the MWMP:

- Public safety and flood risk reduction
    - Protect life and property adjacent to, downstream, and upstream of affected channels from flooding and environmental degradation.
- Responsiveness to reduce flood risk
    - Provide for timely and consistent routine operations and maintenance in the affected channels and associated storm water conveyance infrastructure.
- Avoid, minimize, and/or mitigate potential effects to environmental resources
    - Avoid, minimize, and/or mitigate significant adverse environmental effects resulting from routine maintenance of storm water facilities.
    - Incorporate and adapt to water quality management strategies intended to protect water quality and address flooding impacts.

- Proactive and timely approval process
    - Provide project-level analysis upfront to expedite subsequent authorizations for routine and preventive maintenance activities within storm water facilities.
    - Identify a review-and-approval process to include additional storm water facilities and maintenance activities that follow the protocols and requirements of the MWMP.
- Reduce the need to conduct emergency maintenance during significant storm events by implementing preventive maintenance activities.

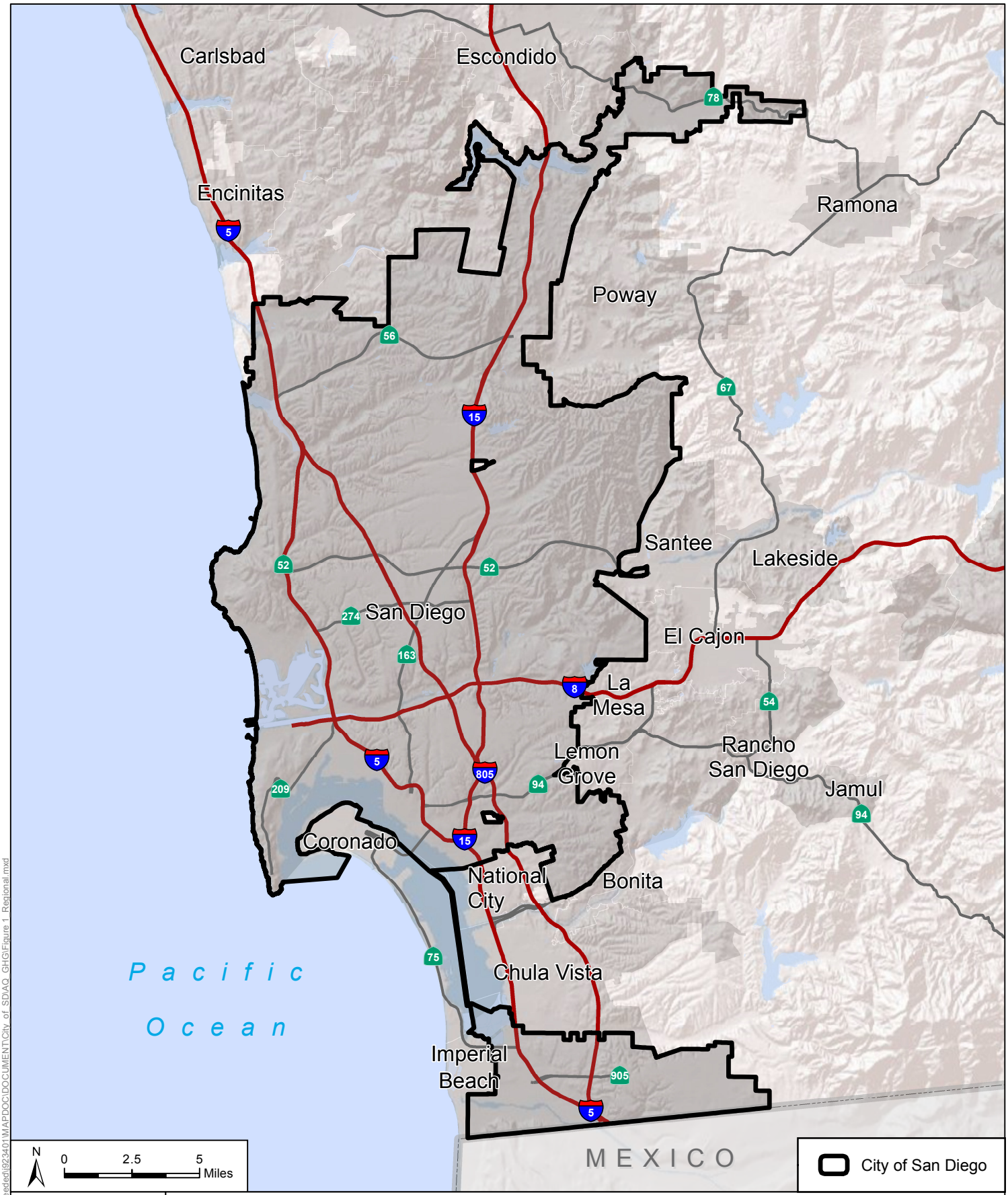
As stated above, the objectives of the MWMP require the ability for TSW to be responsive to newly identified flood risks while also streamlining approvals for routine preventive maintenance that reduces flood risks. To accomplish this, the MWMP identifies the following:

1. A range of plan-wide activities that may occur throughout the storm water system where flood risks may arise and that would be conducted in accordance with a regulatory framework identified under the MWMP and associated permits.
2. A list of Facility Maintenance Plans (FMPs) that provide specific details and requirements for the majority of facilities that are likely to require routine maintenance and repair.

Together, these two components provide operational flexibility while also providing specific detailed analysis for the majority of anticipated maintenance and repair activities to streamline the review and approval process. This technical report forms a project-level analysis based on proposed FMPs that identify the majority of anticipated facility maintenance and repair activities in detail. The conclusions of this project-level analysis may be used to analyze additional similar or related activities identified for a program-level analysis in the MWMP; however, such program-level analysis is not included in this technical report.

Figures 3A–3C, Representative Projects, illustrate three groups of facilities:

1. Project FMPs (identified in yellow, outlined in black, and labeled with a facility number); these facilities comprise the majority of anticipated maintenance and repair locations.
2. Representative FMPs (identified in yellow, outlined in cyan, and labeled with a facility group and segment name); these facilities are a subset of the project FMPs that were selected for the representative analysis discussed in more detail in Section 2.3.2, Approach and Methodology.
3. Additional facilities subject to limited program-level activities (identified in blue); not analyzed in this technical report, but the conclusions of this report may be used to develop a program-level analysis for similar or related activities.




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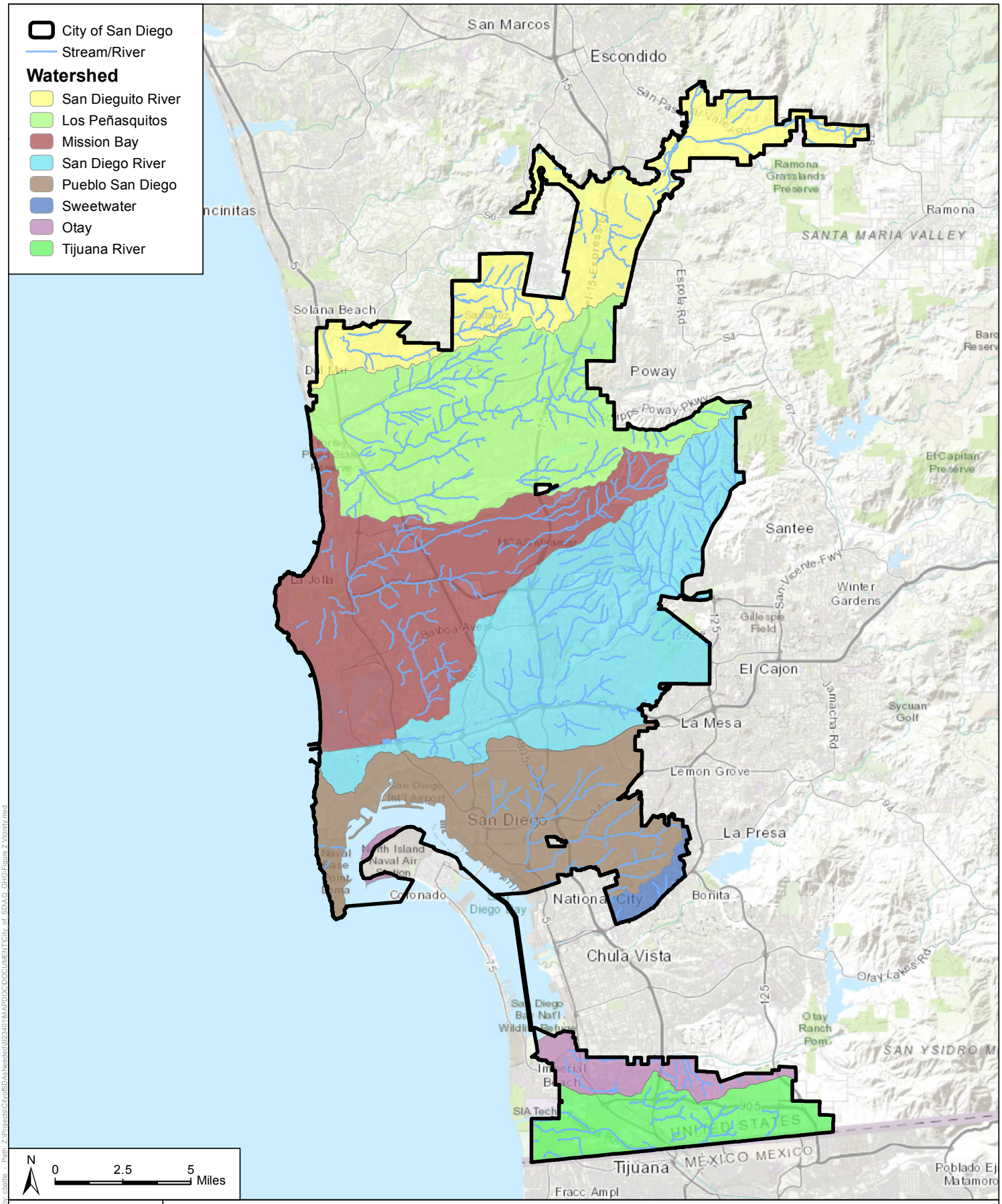
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**Figure 1 - Regional Map**

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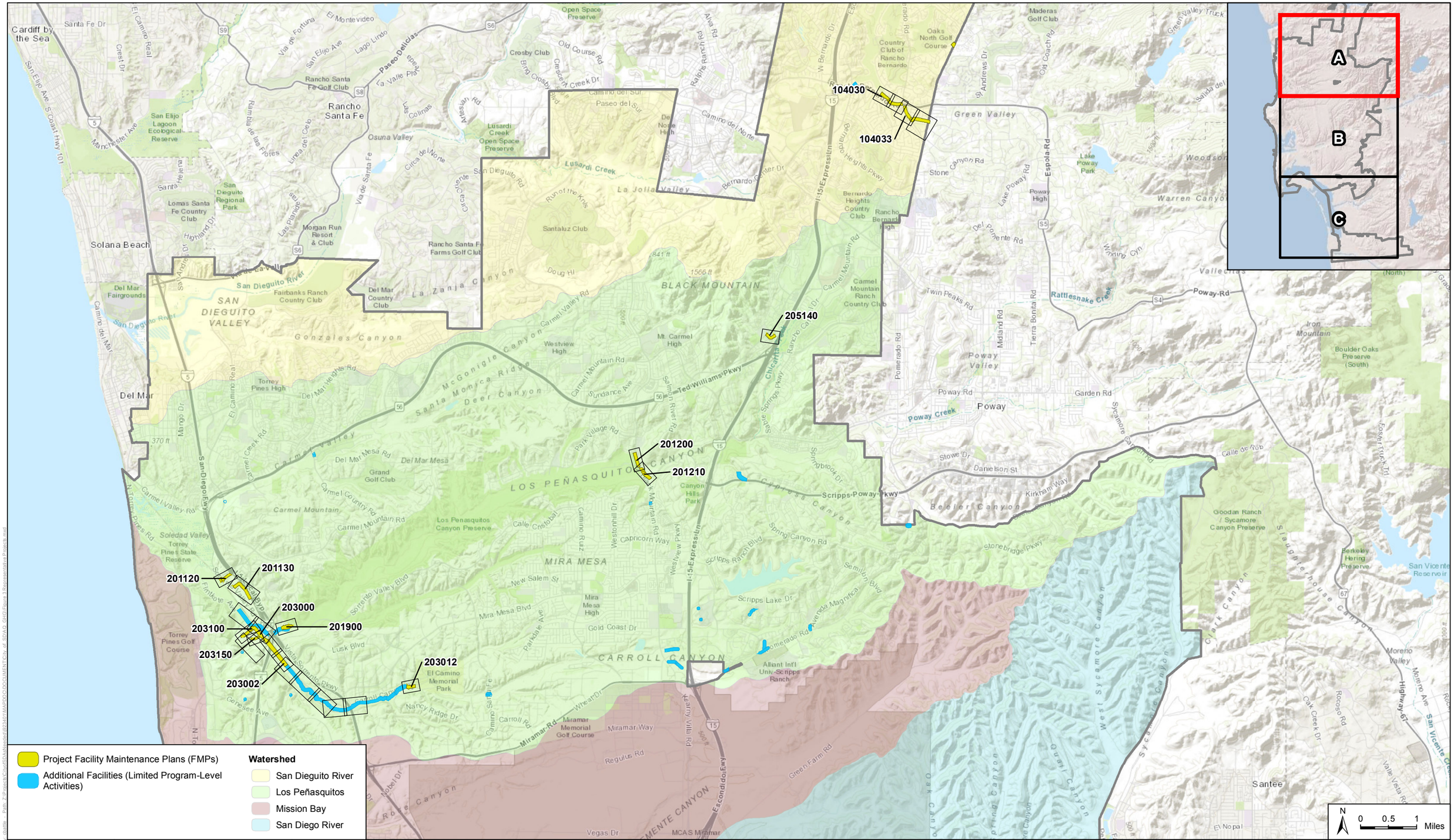
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**Figure 2 - Vicinity Map**

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SOURCE: ESRI, 2017; SANDAG, 2017

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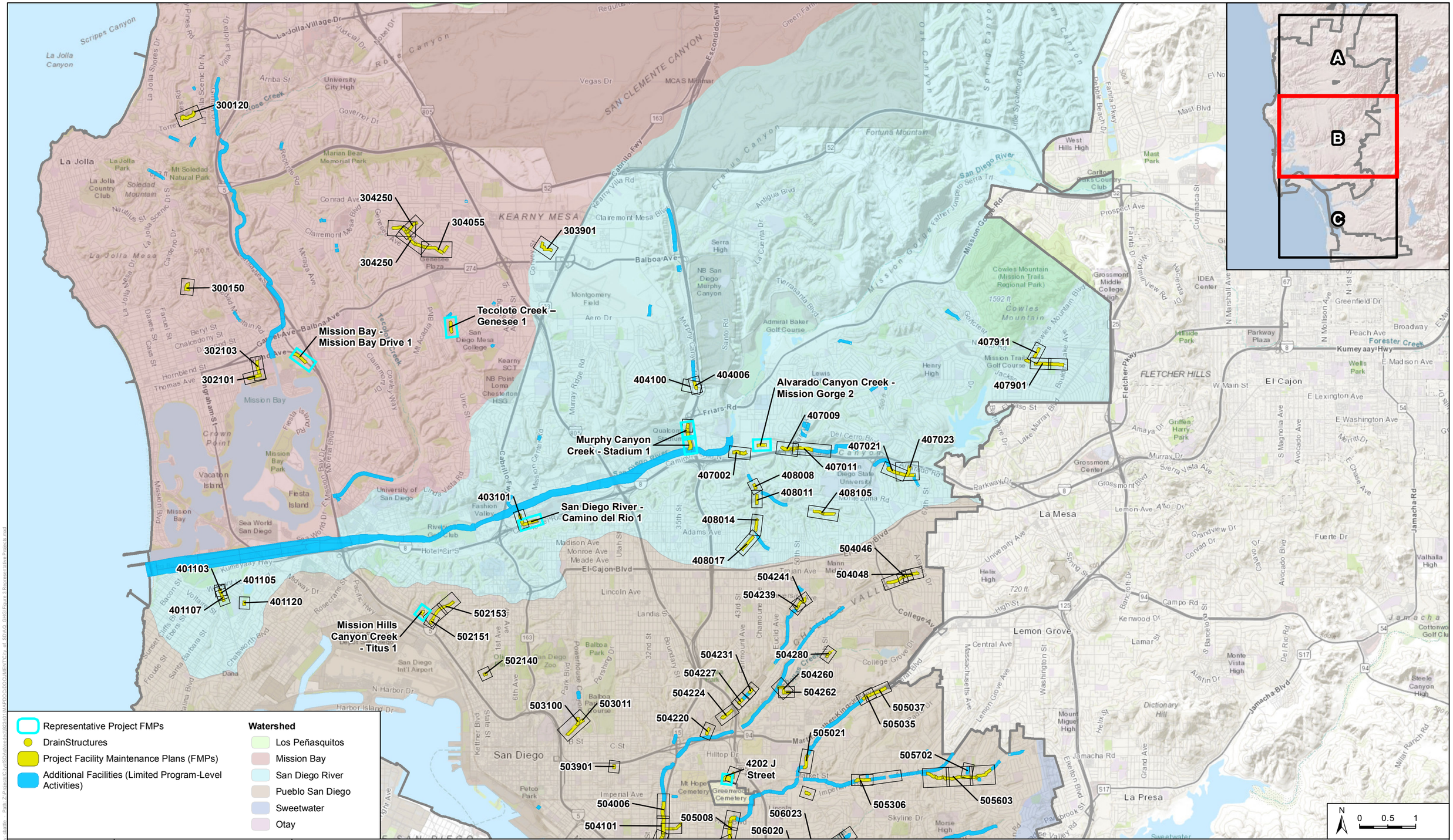
Municipal Waterways Maintenance Plan

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**Figure 3A - Representative Projects (Sheet 1)**

Date: 7/30/2019 Last saved by: dbattle Path: Z:\Projects\City\of\SD\MasterDef\923401\MAPS\DOCS\DOCUMENT\City_of_SDWLQ_GHG\Figure 3 Representative Projects.mxd

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SOURCE: ESRI, 2017; SANDAG, 2017

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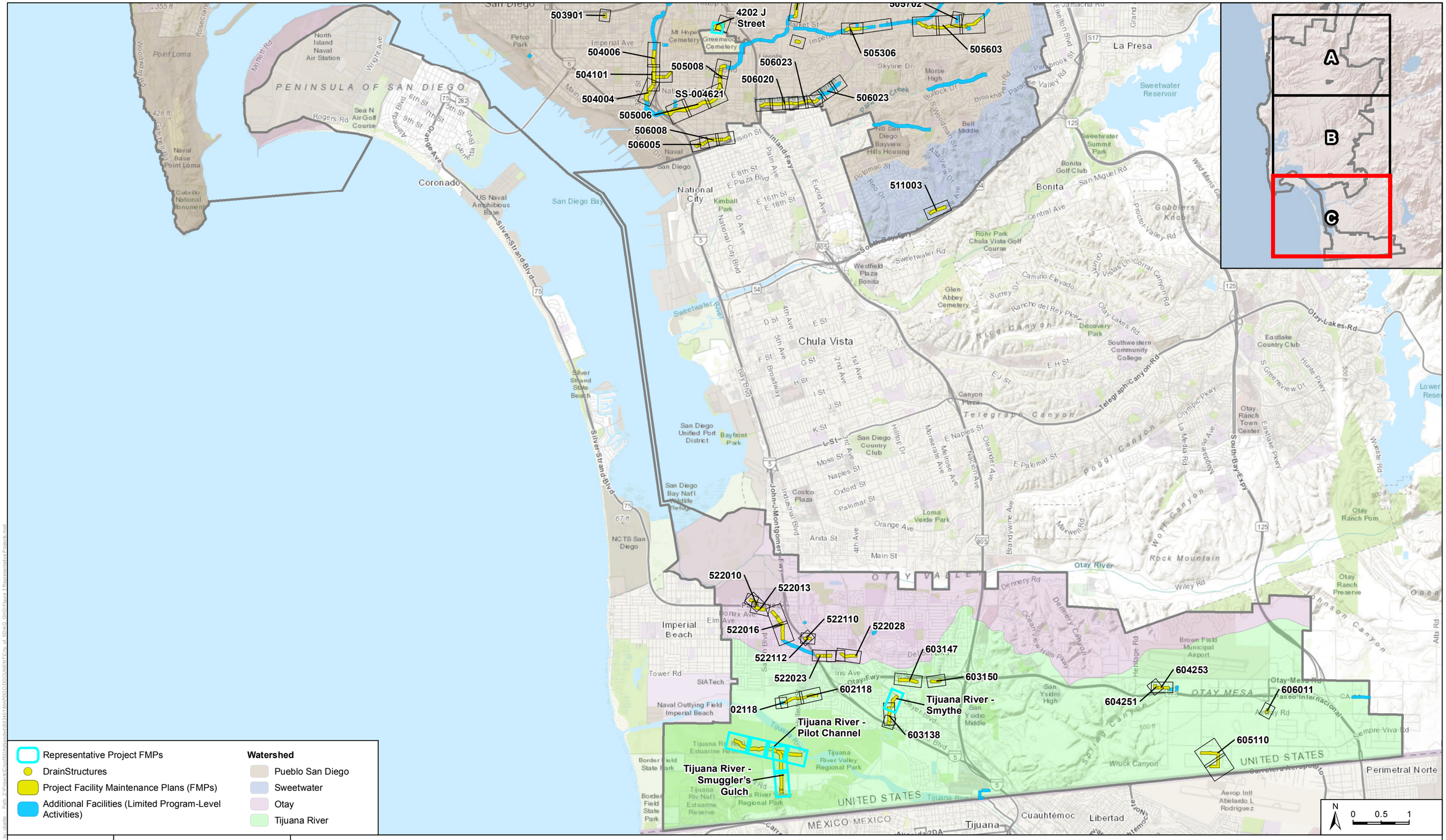
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**Figure 3B - Representative Projects (Sheet 2)**

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SOURCE: ESRI, 2017; SANDAG, 2017

Municipal Waterways Maintenance Plan

Air Quality and Greenhouse Gas Emissions Analysis Technical Report

**Figure 3C - Representative Projects (Sheet 3)**

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# 2 AIR QUALITY

## 2.1 ENVIRONMENTAL SETTING

The MWMP study area is located within the San Diego Air Basin (SDAB or basin) and is subject to the SDAPCD guidelines and regulations. The SDAB is one of 15 air basins that geographically divide California. The SDAB comprises the entire San Diego region and covers approximately 4,260 square miles.

### 2.1.1 CLIMATE AND TOPOGRAPHY

The primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted. Meteorological and topographical conditions, however, are also important. Factors such as wind speed and direction, air temperature gradients and sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersal of air pollutants. Meteorological and topographical factors that affect air quality in the SDAB are described herein.[1]

**Regional Climate and Meteorological Conditions**

The climate of the San Diego region, as in most of Southern California, is influenced by the strength and position of the semi-permanent high-pressure system over the Pacific Ocean, known as the Pacific High. This high-pressure ridge over the West Coast often creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, daytime onshore breezes, and little temperature variation year-round. The SDAB is characterized as a Mediterranean climate with dry, warm summers and mild, occasionally wet winters. Average temperature ranges (in degrees Fahrenheit (°F)) from the mid-40s to the high 90s, with an average of 201 days above 70°F. The SDAB experiences 9–13 inches of rainfall annually with most of the region's precipitation falling from November through March, with infrequent (approximately 10%) precipitation during the summer. El Niño and La Niña patterns have large effects on the annual rainfall received in San Diego, whereas San Diego receives less than normal rainfall during La Niña years.

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). The winds tend to blow onshore in the daytime and offshore at night. Local terrain is often the dominant factor

[1] The discussion of meteorological and topographical conditions of the SDAB is based on information provided in SDAPCD's *Annual Air Quality Monitoring Network Plan 2016* (SDAPCD 2017a), the *City* of *San Diego General Plan Program Environmental Impact Report* (City of San Diego 2007), and CARB's *Recommended Area Designation for the 2010 Federal Sulfur Dioxide Standard* (CARB 2011).

inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

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 ozone ($O_3$), which contributes to the formation of smog. Smog is a combination of smoke and other particulates, $O_3$, hydrocarbons, oxides of nitrogen ($NO_x$), 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.

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 $NO_x$ 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 ($NO_2$) levels are also generally higher during fall and winter days.

**Site-Specific Meteorological Conditions**

The local climate in the San Diego region is characterized as semi-arid with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 80°F. The average wintertime low temperature is approximately 50°F. Average precipitation in the local area is approximately 10 inches per year, with the bulk of precipitation falling between December and March (NOAA 2017; WRCC 2009).

**Topographical Conditions**

Topography in the San Diego region varies greatly, from beaches in the west to mountains and desert in the east; much of the topography in between consists of mesa tops intersected by canyon areas. Along with local meteorology, topography influences the dispersal and movement of pollutants in the SDAB. 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.

The topography of the SDAB also drives pollutant levels and the SDAB is classified as a transport recipient. Pollutants are transported from the South Coast Air Basin to the north and, when the wind shifts direction, from Tijuana, Mexico, to the south.

## 2.1.2 POLLUTANTS AND EFFECTS

### 2.1.2.1 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 $O_3$, $NO_2$, CO, sulfur dioxide ($SO_2$), coarse particulate matter ($PM_{10}$), fine particulate matter ($PM_{2.5}$), and lead.[2] These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[3] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** $O_3$ is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and $O_3$ precursors. These precursors are mainly $NO_x$ and volatile organic compounds (VOCs). The maximum effects of precursor emissions on $O_3$ concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in $O_3$ formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. $O_3$ exists in the upper atmosphere $O_3$ layer (stratospheric ozone) and at the Earth's surface in the troposphere (tropospheric ozone).[4] The $O_3$ that the U.S. Environmental Protection Agency (EPA) and

[2] Lead, which is a criteria air pollutant, has not been a major source of air pollution concern since lead was removed from gasoline in the early 1990s as a result of the 1990 Clean Air Act Amendments. Lead pollution nationally has decreased 98% since 1990 (EPA 2018)

[3] The descriptions of each of the criteria air pollutants and associated health effects are based on the U.S. Environmental Protection Agency's (EPA's) Criteria Air Pollutants (EPA 2016a) and the CARB Glossary of Air Pollutant Terms (CARB 2016a).

[4] The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level $O_3$ is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" $O_3$. Stratospheric, or "good," $O_3$ occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric $O_3$ layer, plant and animal life would be seriously harmed.

$O_3$ in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to $O_3$ 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 (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

**Nitrogen Dioxide.** $NO_2$ is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of $NO_2$ in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. $NO_x$ plays a major role, together with VOCs, in the atmospheric reactions that produce $O_3$. $NO_x$ is formed from fuel combustion under high temperature or pressure. In addition, $NO_x$ is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

$NO_2$ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016a).

**Carbon Monoxide.** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or 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 MWMP program area, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that 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, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

**Sulfur Dioxide.** $SO_2$ is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of $SO_2$ are coal and oil used in power plants and industries; as such, the highest levels of $SO_2$ are generally found near large industrial complexes. In recent years, $SO_2$ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of $SO_2$ and limits on the sulfur content of fuels.

$SO_2$ is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, $SO_2$ can injure lung tissue and reduce visibility and the level of sunlight. $SO_2$ 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. $PM_{2.5}$ and $PM_{10}$ represent fractions of particulate matter. $PM_{10}$ consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of $PM_{10}$ 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. $PM_{2.5}$ consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides ($SO_x$), $NO_x$, and VOCs.

$PM_{2.5}$ and $PM_{10}$ 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. $PM_{2.5}$ and $PM_{10}$ 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 lead, 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 $PM_{10}$ tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter.

People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in $PM_{10}$ and $PM_{2.5}$ (EPA 2009).

**Lead.** Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, 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 phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern. Because emissions of lead are chiefly found in manufacturing processes that are separately regulated by the SDPACD, lead is not an air quality of concern for the proposed MWMP.

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. Children are highly susceptible to the effects of lead.

**Volatile Organic Compounds.** Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of $O_3$ are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of $O_3$ and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

#### 2.1.2.2 Non-Criteria Air 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 TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the

health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

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 on either 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. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair), and, thus, is a subset of $PM_{2.5}$ (CARB 2016a). DPM is typically composed of carbon particles ("soot," also called black carbon, or BC) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016a). The CARB classified "particulate emissions from diesel-fueled engines" (i.e., 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). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016a). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

**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.

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, and 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, schools, playgrounds, and childcare centers, other land uses where people congregate, such as recreational areas, work sites, and commercial areas, should also be considered in the evaluation of potential odor nuisance impacts.

**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. San Diego County (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 per year (Nelson 2018). In 26 of the 30 zip codes in the MWMP program area, the incidence of Valley Fever is either less than the average County rate or had too few cases to be reliably used to calculate a rate (Nelson 2018).[5] All zip codes in the MWMP area had an incident rate lower than the statewide average. Statewide incidences in 2016 were 13.7 per 100,000 people (CDPH 2016).

Even if present at a site, earth-moving activities may not result in increased incidence of Valley Fever. Propagation of *Coccidioides immitis* is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. *Coccidioides immitis* spores can be released when filaments are disturbed by earth-moving activities, although receptors must be

[5] Per the County of San Diego Health and Human Services Agency, Coccidioidomycosis incidence counts for a single year and a single zip code are too small to work with; therefore, incidence counts reflect 10 years of aggregated data (2007–2016) (Nelson 2018).

exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to *Coccidioides immitis* does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

## 2.1.3 REGIONAL AND LOCAL AIR QUALITY CONDITIONS

### 2.1.3.1 San Diego Air Basin Attainment Designation

Pursuant to the federal Clean Air Act, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS.

### 2.1.3.2 Local Ambient Air Quality

The MWMP study area's local ambient air quality is monitored by SDAPCD. CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations.

Two air quality monitoring stations are located in the City: Kearny Villa (6125 Kearny Villa Road) and downtown San Diego (1110 Beardsley Street). Neither monitoring station in the City measures SOx; therefore, data from the nearest monitoring station in El Cajon (10537 Floyd Smith Drive) was used. Given that individual facilities associated with the MWMP are distributed throughout the City, data were examined for each of the two air quality monitoring sites, and the maximum air pollutant concentration monitored is presented in Table 1, Local Ambient Air Quality Data. The data collected at these stations are considered representative of the air quality experienced in the MWMP vicinity. Air quality data from 2014 through 2016 for the monitoring stations are provided in Table 1. Table 2, San Diego Air Basin Attainment Classification, summarizes the SDAB's federal and state attainment designations for each of the criteria pollutants.

**Table 1**
**Local Ambient Air Quality Data**

| Monitoring Station | Unit | Averaging Time | Agency/ Method | Ambient Air Quality Standard | Measured Concentration by Year | | | Exceedances by Year | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *2014* | *2015* | *2016* | *2014* | *2015* | *2016* |
| *Ozone ($O_3$)* | | | | | | | | | | |
| Kearny Villa | ppm | Maximum 1-hour concentration | State | 0.09 | 0.099 | 0.077 | 0.087 | 1 | 0 | 0 |
| | ppm | Maximum 8-hour concentration | State | 0.070 | 0.081 | 0.070 | 0.075 | 4 | 0 | 3 |
| | | | Federal | 0.070 | 0.081 | 0.070 | 0.075 | 4 | 0 | 3 |
| *Nitrogen Dioxide ($NO_2$)* | | | | | | | | | | |
| Downtown San Diego | ppm | Maximum 1-hour concentration | State | 0.18 | 0.075 | 0.062 | 0.073 | 0 | 0 | 0 |
| | | | Federal | 0.100 | 0.075 | 0.062 | 0.073 | 0 | 0 | 0 |
| | ppm | Annual concentration | State | 0.030 | 0.013 | 0.014 | 0.012 | 0 | 0 | 0 |
| | | | Federal | 0.053 | 0.013 | 0.014 | 0.012 | 0 | 0 | 0 |
| *Carbon Monoxide (CO)* | | | | | | | | | | |
| Downtown San Diego | ppm | Maximum 1-hour concentration | State | 20 | 2.7 | 2.6 | 2.2 | 0 | 0 | 0 |
| | | | Federal | 35 | 2.7 | 2.6 | 2.2 | 0 | 0 | 0 |
| | ppm | Maximum 8-hour concentration | State | 9.0 | 1.9 | 1.4 | 1.7 | 0 | 0 | 0 |
| | | | Federal | 9 | 1.9 | 1.4 | 1.7 | 0 | 0 | 0 |
| *Sulfur Dioxide ($SO_2$)* | | | | | | | | | | |
| El Cajon | ppm | Maximum 1-hour concentration | Federal | 0.075 | 1.2 | 1.2 | 1.8 | 0 | 0 | 0 |
| | ppm | Maximum 24-hour concentration | Federal | 0.14 | 0.3 | 0.4 | 0.5 | 0 | 0 | 0 |

**Table 1**
**Local Ambient Air Quality Data**

| Monitoring Station | Unit | Averaging Time | Agency/ Method | Ambient Air Quality Standard | Measured Concentration by Year | | | Exceedances by Year | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | *2014* | *2015* | *2016* | *2014* | *2015* | *2016* |
| | ppm | Annual concentration | Federal | 0.030 | — | — | — | — | — | — |
| *Coarse Particulate Matter ($PM_{10}$)* [a] | | | | | | | | | | |
| Downtown San Diego | μg/m³ | Maximum 24-hour concentration | State | 50 | 41.0 | 54.0 | 51.0 | 0 | 0 | 0 |
| | | | Federal | 150 | 40.0 | 53.0 | 49.0 | 0 | 0 | 0 |
| | μg/m³ | Annual concentration | State | 20 | 23.8 | 25 | ND | 0.0 | 5.7 | ND |
| *Fine Particulate Matter ($PM_{2.5}$)* [a] | | | | | | | | | | |
| Downtown San Diego | μg/m³ | Maximum 24-hour concentration | Federal | 35 | 36.7 | 33.4 | 34.4 | 1 | 0 | ND |
| | μg/m³ | Annual concentration | State | 12 | 10.2 | 10.2 | ND | 0 | 0 | 0 |
| | | | Federal | 12.0 | 10.1 | 9.3 | ND | 0 | 0 | 0 |

**Sources:** CARB 2017a; EPA 2016c.
**Notes:**
ppm = parts per million by volume; μg/m³ = micrograms per cubic meter; — = not available; ND = insufficient data available to determine the value.
Data were taken from CARB (2016d) iADAM (http://www.arb.ca.gov/adam) or EPA (2016) AirData (http://www.epa.gov/airdata/) and represent the highest concentrations experienced over a given year.
Exceedances of federal and state standards are shown for ozone and particulate matter. Daily exceedances for particulate matter are estimated days because $PM_{10}$ and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed either federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual $PM_{10}$, or 24-hour $SO_2$, nor is there a state 24-hour standard for $PM_{2.5}$.
[a] Measurements of $PM_{10}$ and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

**Table 2**
**San Diego Air Basin Attainment Classification**

| Pollutant | Federal Designation | State Designation |
|---|---|---|
| $O_3$ (1-hour) | Attainment[a] | Nonattainment |
| $O_3$ (8-hour – 1997)<br>(8-hour – 2008) | Attainment (Maintenance)<br>Nonattainment (Moderate) | Nonattainment |
| $NO_2$ | Unclassifiable/Attainment | Attainment |
| CO | Attainment (Maintenance) | Attainment |
| $SO_2$ | Unclassifiable/Attainment | Attainment |
| $PM_{10}$ | Unclassifiable/Attainment | Nonattainment |
| $PM_{2.5}$ | Unclassifiable/Attainment | Nonattainment |
| Lead | Unclassifiable/Attainment | Attainment |
| Sulfates | No federal standard | Attainment |
| Hydrogen Sulfide | No federal standard | Unclassified |
| Visibility-Reducing Particles | No federal standard | Unclassified |
| Vinyl chloride | No federal standard | No designation |

**Sources:** EPA 2016b (federal); CARB 2016c (state).
**Notes:** Attainment = meets the standards; Attainment/Maintenance = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify; Unclassifiable/Attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

[a] The federal 1-hour standard of 0.12 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 State Implementation Plans (SIPs).

In summary, the SDAB is designated as an attainment area for the 1997 8-hour $O_3$ NAAQS and as a nonattainment area for the 2008 8-hour $O_3$ NAAQS. The SDAB is designated as a nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$ CAAQS. The portion of the SDAB where the MWMP study area is located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

### 2.1.4 SENSITIVE RECEPTORS

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 people most likely to be affected by air pollution live or spend considerable amounts of time are known as sensitive receptors. Facilities where these individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005; City of San Diego 2016). Sensitive receptors that could be located nearby MWMP activities are anticipated to include residences and recreation centers adjacent to maintenance activities.

## 2.2 REGULATORY SETTING

### 2.2.1 FEDERAL REGULATIONS

#### 2.2.1.1 Criteria Air Pollutants

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutant (HAP) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric $O_3$ protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: $O_3$, CO, $NO_2$, $SO_2$, $PM_{10}$, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for $O_3$, $NO_2$, $SO_2$, $PM_{10}$, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for $O_3$, $NO_2$, $SO_2$, $PM_{10}$, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act 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.

#### 2.2.1.2 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.

### 2.2.2 STATE REGULATIONS

#### 2.2.2.1 Criteria Air Pollutants

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, $PM_{10}$, and $PM_{2.5}$ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 3.

**Table 3**
**State and National Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards[a] | National Standards[b] | |
|---|---|---|---|---|
| | | *Concentration*[c] | *Primary*[c,d] | *Secondary*[c,e] |
| $O_3$ | 1 hour | 0.09 ppm (180 μg/m$^3$) | — | Same as Primary Standard[f] |
| | 8 hours | 0.070 ppm (137 μg/m$^3$) | 0.070 ppm (137 μg/m$^3$)[f] | |
| $NO_2$[g] | 1 hour | 0.18 ppm (339 μg/m$^3$) | 0.100 ppm (188 μg/m$^3$) | Same as Primary Standard |
| | Annual Arithmetic Mean | 0.030 ppm (57 μg/m$^3$) | 0.053 ppm (100 μg/m$^3$) | |
| CO | 1 hour | 20 ppm (23 mg/m$^3$) | 35 ppm (40 mg/m$^3$) | None |
| | 8 hours | 9.0 ppm (10 mg/m$^3$) | 9 ppm (10 mg/m$^3$) | |
| $SO_2$[h] | 1 hour | 0.25 ppm (655 μg/m$^3$) | 0.075 ppm (196 μg/m$^3$) | — |
| | 3 hours | — | — | 0.5 ppm (1,300 μg/m$^3$) |
| | 24 hours | 0.04 ppm (105 μg/m$^3$) | 0.14 ppm (for certain areas)[g] | — |
| | Annual | — | 0.030 ppm (for certain areas)[g] | — |
| $PM_{10}$[i] | 24 hours | 50 μg/m$^3$ | 150 μg/m$^3$ | Same as Primary Standard |
| | Annual Arithmetic Mean | 20 μg/m$^3$ | — | |
| $PM_{2.5}$[i] | 24 hours | — | 35 μg/m$^3$ | Same as Primary Standard |
| | Annual Arithmetic Mean | 12 μg/m$^3$ | 12.0 μg/m$^3$ | 15.0 μg/m$^3$ |
| Lead[j,k] | 30-day Average | 1.5 μg/m$^3$ | — | — |
| | Calendar Quarter | — | 1.5 μg/m$^3$ (for certain areas)[k] | Same as Primary Standard |
| | Rolling 3-Month Average | — | 0.15 μg/m$^3$ | |
| Hydrogen sulfide | 1 hour | 0.03 ppm (42 μg/m$^3$) | — | — |
| Vinyl chloride[j] | 24 hours | 0.01 ppm (26 μg/m$^3$) | — | — |

**Table 3**
**State and National Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards[a] | National Standards[b] | |
|---|---|---|---|---|
| | | *Concentration*[c] | *Primary*[c,d] | *Secondary*[c,e] |
| Sulfates | 24- hours | 25 µg/m$^3$ | — | — |
| 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.
**Notes:** µg/m$^3$ = micrograms per cubic meter; mg/m$^3$= milligrams per cubic meter; ppm = parts per million by volume; $O_3$ = ozone; $NO_2$ = nitrogen dioxide; CO = carbon monoxide; $SO_2$ = sulfur dioxide; $PM_{10}$ = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

[a] California standards for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, suspended particulate matter ($PM_{10}$, $PM_{2.5}$), 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.

[b] National standards (other than $O_3$, $NO_2$, $SO_2$, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The $O_3$ 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 $PM_{10}$, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m$^3$ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°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.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f] On October 1, 2015, the national 8-hour $O_3$ primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] 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.

h On June 2, 2010, a new 1-hour SO2 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 $SO_2$ 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.

[i] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m$^3$ to 12.0 μg/m$^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m$^3$, as was the annual secondary standard of 15 μg/m$^3$. The existing 24-hour $PM_{10}$ standards (primary and secondary) of 150 μg/m$^3$ were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j] 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.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/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.

#### 2.2.2.2 Toxic Air Contaminants

The state Air Toxics Program was established in 1983 by 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. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. 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, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). 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. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic

Control Measures 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**

Section 41700 of the California Health and Safety Code states that a person cannot 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.

## 2.2.3 LOCAL REGULATIONS

### 2.2.3.1 San Diego Air Pollution Control District

The SDACPD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the SDAB, where the proposed MWMP activities are located. SDAPCD operates monitoring stations in the SDAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections.

The SDAPCD and 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 Regional Air Quality Strategy (RAQS) for the SDAB was initially adopted in 1991, and is updated on a triennial basis (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for $O_3$. The RAQS relies on information from CARB and SANDAG to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB's mobile source emission projections and SANDAG's growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the 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 programs would allow the region to reach attainment of the federal 8-hour $O_3$ standard by 2018 (SDAPCD 2016a). In the ozone plan, SDAPCD relies on the RAQS to demonstrate how the region will comply with the federal $O_3$ standard. The RAQS details how the region will manage and reduce $O_3$ precursors ($NO_x$ and VOCs) by identifying measures and regulations intended to reduce these pollutants. 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 programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

The SDAPCD's *Measures to Reduce Particulate Matter in San Diego County* report addresses implementation of Senate Bill (SB) 656 in San Diego County (SB 656 required additional controls to reduce ambient concentrations of $PM_{10}$ and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated 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.

**Applicable Rules**

Emissions that would result from implementation of maintenance activities under the MWMP may be subject to SDAPCD rules and regulations. The SDAPCD rules applicable to the MWMP may include the following:

- **SDAPCD Regulation II: Permits; Rule 20.2**: **New Source Review Non-Major Stationary Sources**. Requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, NOx, SOx, or $PM_{10}$ to be equipped with best available control technology (BACT). For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2016b).

  The MWMP does not propose specific stationary sources. If stationary sources were to be included as part of the MWMP, those sources would be subject to Rule 20.2 and would require appropriate operating permits from the SDAPCD. Because the SDAPCD has not adopted specific criteria air pollutant thresholds for CEQA analyses, the thresholds identified in Rule 20.2 are used in this analysis as screening-level thresholds to evaluate project-level impacts, as discussed in Section 2.3.1, Thresholds of Significance.

- **SDAPCD Regulation IV: Prohibitions; Rule 50**: **Visible Emissions**. Prohibits discharge into the atmosphere, from any single source of emissions whatsoever, any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an

observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

Construction activities associated with implementation of the MWMP maintenance activities may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. The MWMP would not include operational activities that could generate visible emissions.

- **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 have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1976).

  Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of the MWMP would be subject to SDAPCD Rule 51. Violations can be reported to the SDAPCD in the form of an air quality complaint by telephone, email, and online form. Complaints are investigated by the SDAPCD as soon as possible.

- **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 2009).

  Construction of the MWMP's maintenance activities, primarily during earth-disturbing activities, may result in fugitive dust emissions that would be subject to SDAPCD Rule 55. The MWMP would not include operational activities that could generate fugitive dust emissions.

## 2.3 SIGNIFICANCE CRITERIA AND METHODOLOGY

### 2.3.1 THRESHOLDS OF SIGNIFICANCE

The City's *California Environmental Quality Act (CEQA) Significance Determination Thresholds* (City of San Diego 2016) and Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) contain significance guidelines related to air quality. The following questions are from the City (City of San Diego 2016), and provide guidance to determine potential significance for air quality impacts. The MWMP may have a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.

2. Expose sensitive receptors to substantial pollutant concentrations.[6]
3. Create result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
4. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the proposed MWMP would have a significant impact on air quality (CEQA Guidelines Appendix G Checklist Item III, Air Quality).

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. MWMP-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable screening-level thresholds presented in Table 4, SDAPCD Air Quality Screening-Level Thresholds, are exceeded. For CEQA purposes, these screening criteria can be used as quantitative methods to demonstrate that a project's total emissions would or would not result in a significant impact to air quality.

**Table 4**
**SDAPCD Air Quality Screening-Level Thresholds**

| **Construction Emissions** | |
|---|---|
| *Pollutant* | *Total Emissions (pounds per day)* |
| Respirable particulate matter ($PM_{10}$) | 100 |
| Fine particulate matter ($PM_{2.5}$) | 55 |
| Oxides of nitrogen ($NO_x$) | 250 |
| Oxides of sulfur ($SO_x$) | 250 |
| Carbon monoxide (CO) | 550 |
| Volatile organic compounds (VOC) | 137[a] |

[6] Including air toxics such as diesel particulates. As adopted by the South Coast Air Quality Management District (SCAQMD) in its CEQA Air Quality Handbook (Chapter 4), a sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant than is the population at large. Sensitive receptors (and the facilities that house them) in proximity to localized CO sources, toxic air contaminants, or odors are of particular concern.

**Table 4**
**SDAPCD Air Quality Screening-Level Thresholds**

| Operational Emissions | | | |
|---|---|---|---|
| | *Total Emissions* | | |
| *Pollutant* | *Pounds per Hour* | *Pounds per Day* | *Tons per Year* |
| Respirable particulate matter ($PM_{10}$) | — | 100 | 15 |
| Fine particulate matter ($PM_{2.5}$) | — | 55 | 10 |
| Oxides of nitrogen ($NO_x$) | 25 | 250 | 40 |
| Sulfur oxides ($SO_x$) | 25 | 250 | 40 |
| Carbon monoxide (CO) | 100 | 550 | 100 |
| Lead and lead compounds | — | 3.2 | 0.6 |
| Volatile organic compounds (VOC) | — | 137[a] | 13.7 |

**Sources:** City of San Diego 2016; SDAPCD 2017b.

[a] VOC threshold based on the significance thresholds recommended by the Monterey Bay Air Resources District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for $O_3$.

The SDAPCD Air Quality Screening-Level Thresholds shown in Table 4 were used to determine the significance of MWMP-generated criteria air pollutants, specifically, the MWMP's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation. The pounds per day threshold for construction and operational emissions are the same, which is applied in this analysis. The emissions-based thresholds for $O_3$ precursors are intended to serve as a surrogate for an "$O_3$ significance threshold" (i.e., the potential for adverse $O_3$ impacts to occur). This approach is used because $O_3$ is not emitted directly (see the discussion of $O_3$ and its sources in Section 2.1.2, Pollutants and Effects), and the effects of an individual project's emissions of $O_3$ precursors (VOC and $NO_x$) on $O_3$ levels in ambient air cannot be determined through air quality models or other quantitative methods. Emissions below the screening-level thresholds would not cause a significant impact.

For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4, the MWMP 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 (as assessed under threshold criterion 4).

In regards to the analysis of potential impacts to sensitive receptors (threshold criterion 2), 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.

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). Regarding threshold criterion 3, 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. The City's guidance 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.

## 2.3.2 APPROACH AND METHODOLOGY

### 2.3.2.1 Representative Projects Overview

To provide a conservative analysis of activities proposed under the MWMP, representative projects were identified by the City based on input from City engineers and operations staff. For each maintenance activity, a proposed representative segment was selected to represent that category and analyzed to evaluate potential emissions associated with implementation of activities within that maintenance category. The representative project selection is presented in Appendix K to the MWMP's Environmental Impact Report (EIR). There are a total of 113 facility segments with proposed Facility Maintenance Plans (FMPs) that are represented by eight corresponding representative projects. These FMPs and the representative projects are focused on sediment and vegetation removal. Additionally, within those 113 facilities, an estimated 55 would potentially also include concrete repair represented with two additional projects (10 representative projects total). Information regarding a typical construction scenario, including anticipated phasing and phase duration, off-road equipment, worker trips, vendor truck trips (including water trucks), and haul truck trips, was generated for each of these representative segment facility maintenance plans (FMPs).

These representative projects are intended to represent a high-level intensity scenario associated with proposed MWMP implementation. Construction specifications of each activity would vary depending on the subject site characteristics, maintenance or improvement needs, and type of proposed solution; however, construction requirements for activities within the same category are not expected to differ substantially. Because several of the proposed activities address similar issues, the proposed solutions include similar procedures, many of which are techniques the City has historically used to resolve common issues, including routine activities that do not require advanced planning and design. Therefore, although maintenance of each proposed project- and program-level activity would differ from the scenarios analyzed in the MWMP EIR, the modeled representative projects and estimated maximum air pollutant emissions included herein represent a

conservative assessment of air quality and odor impacts associated with anticipated project- and program-level maintenance. A discussion of programmatic activities and potential impacts is provided in the Air Quality and Odor Section of the EIR.

Criteria air pollutant emissions associated with representative projects were quantified using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. Project-specific information was assumed in CalEEMod based on information provided by City staff and representative segment FMPs. The representative projects are broadly characterized into two main site categories: concrete-lined and earthen-bottom segments. Both site categories include multiple representative segment FMPs to provide a range of scenarios that could occur over the life of the MWMP.

**Concrete-Lined Facilities**

Proposed maintenance activities in concrete-lined facilities are represented by four representative segment FMPs of varying intensity: 20% or more of the facility requires vegetation removal, less than 20% of the facility requires vegetation removal, minor concrete repair, and major concrete repair. Of the 113 proposed segment FMPs, 43 segments (38%) consist of less than 20% vegetation removal and 11 segments (10%) consist of 20% or more vegetation removal. Additionally, it is estimated that within the 113 FMPs, 50 segments may require minor concrete repair and five segments may require major concrete repair.[7]

**Earthen-Bottom Facilities**

Proposed maintenance activities in earthen-bottom facilities consist of six representative segment FMPs of varying intensity: large to small channels/ditches and basins, outlet/inlet structures, and a facility that is atypical in size. Of the 113 proposed MWMP segment FMPs, 47 (42%) would consist of earthen-bottom channel/ditch or basins segments and 10 (9%) would consist of outlet/inlet structures. In addition, one project, the Tijuana River Smuggler's Gulch project, was analyzed to represent the maximum intensity of anticipated activities associated with earthen-bottom facilities. The Tijuana River Smuggler's Gulch project includes two segments and represents 2% of the FMPs. The earthen-bottom channel/ditch and basins projects are represented by four representative segment FMPs to provide a more complete picture of geographies in the City for typical projects.

[7] Concrete repair represents additional facility work at locations where vegetation and sediment removal are also anticipated and do not represent separate facilities or standalone FMPs. These concrete repair projects therefore do not count toward the 113 segment FMPs.

**Timing and Duration**

Implementation of maintenance activities for all segments would be ongoing. Based on TSW's fleet and personnel capacity, it was determined that a maximum of 10 maintenance activities[8] could occur concurrently and represent the most conservative daily emissions. Additionally, it was determined that a maximum of 43 maintenance activities[9] could occur in a calendar year, representing the maximum potential annual emissions.

### 2.3.2.2 Representative Concrete-Lined Facility Maintenance and Repair Activities

The representative proposed concrete-lined facility repair activities selected for this air quality analysis are described in this section. Table 5 presents a summary of the representative proposed concrete-lined facility maintenance and repair activities analyzed herein.

**Table 5**
**Representative Concrete-Lined Facility Maintenance and Repair Activities Summary**

| Representative Project ID | Maintenance Activity Category | Approximate Number of FMP Segments Represented | Representative Facility Maintenance Plan(s) | Approx. Linear Feet | Approximate Cubic Yards |
|---|---|---|---|---|---|
| 1 | Concrete with vegetation removal (20% or more vegetated) | 11 | San Diego River – Camino del Rio Segment 1 | 1,000 | 800 |
| 2 | Concrete with vegetation removal (less than 20% vegetated) | 43 | Alvarado Canyon Creek – Mission Gorge Segment 2 | 600 | 1,400 |
| 3 | Minor concrete repair | 50 | Generic Concrete Repair FMP | 50 | 32 |

[8] Representative projects used to estimate maximum concurrent daily activities include representative project ID's 1 through 5 and 7 through 10, with project ID 9 duplicated to represent two occurrences.

[9] The estimated maximum annual maintenance includes 33 segments (19 sediment and vegetation removal, and 14 concrete repair) and 10 structures. Concrete repair and sediment/vegetation removal may occur in the same facility location, but are considered separate projects for purposes of this analysis.

**Table 5**
**Representative Concrete-Lined Facility Maintenance and Repair Activities Summary**

| Representative Project ID | Maintenance Activity Category | Approximate Number of FMP Segments Represented | Representative Facility Maintenance Plan(s) | Approx. Linear Feet | Approximate Cubic Yards |
|---|---|---|---|---|---|
| 4 | Major concrete repair | 5 | Tijuana River – Via Encantadoras Segment 3 | 900 | 121 |

**Source:** Appendix K to the MWMP EIR

Details and construction assumptions for each representative project are provided in the following sections.

**Concrete-Lined with 20% or More Vegetation Removal**

Of the 113 proposed MWMP segment FMPs, 11 segments (10%) are estimated to require 20% or more vegetation removal. The San Diego River–Camino del Rio Segment 1 was chosen to represent these projects. The sediment/debris at this site was 3 to 4 feet deep with dense or very dense vegetation requiring mechanical removal. Maintenance scenario assumptions for concrete-lined facilities requiring 20% or more vegetation removal are provided in Table 6.

**Table 6**
**Representative Project 1 Assumptions – Concrete-Lined Facilities with 20% or More Vegetation Removal**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Maintenance Activities | 10 | 48 | 4 | 100 | Excavators | 1 | 8 |
| | | | | | Skid steer loaders | 1 | 8 |
| | | | | | Crushing/ Processing Equipment[1] | 1 | 8 |
| | | | | | Sweeper/ scrubber[2] | 1 | 2 |

**Table 6**
**Representative Project 1 Assumptions – Concrete-Lined Facilities with 20% or More Vegetation Removal**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Pump Use | 2 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Notes:** Equipment and activities listed are from the Facility Maintenance Plan San Diego River-Camino del Rio assumptions sheet.

[1] Adjusted to 10 horsepower to reflect the use of EZ-Screen 1000XL.

[2] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

### Concrete-Lined with Less Than 20% Vegetation Removal

Of the 113 proposed MWMP segment FMPs, 43 segments (38%) are estimated to require less than 20% vegetation removal. The Alvarado Canyon Creek–Mission Gorge Segment 2 was chosen to represent these projects. The sediment/debris at this site was ranged between bare concrete to 2.5 feet of sediment/debris. Vegetation ranged from light to heavy. Maintenance scenario assumptions for concrete-lined facilities with less than 20% vegetation removal are provided in Table 7.

**Table 7**
**Representative Project 2 Assumptions – Concrete-Lined Facilities with Less Than 20% Vegetation Removal**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Maintenance Activities | 14 | 48 | 2 | 175 | Excavators | 1 | 8 |
| | | | | | Skid steer loaders | 1 | 8 |
| | | | | | Tractors/loaders/backhoes | 1 | 8 |
| | | | | | Crane | 1 | 4 |
| | | | | | Sweeper/scrubber[1] | 1 | 2 |

**Table 7**
**Representative Project 2 Assumptions – Concrete-Lined Facilities with Less Than 20% Vegetation Removal**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Pump Use | 3 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Notes:** Equipment and activities listed are from the FMP Alvarado Canyon Creek - Mission Gorge Segment 2 assumptions sheet.

[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

**Minor Concrete Repair**

Of the 113 proposed MWMP segment FMPs, 50 segments (44%) with minor concrete repair are estimated to occur. A general concrete repair FMP segment was chosen to represent these projects. The segment would include 50 feet of concrete repair and 6 cubic yards of haul. Maintenance scenario assumptions for minor concrete repair are provided in Table 8.

**Table 8**
**Representative Project 3 Assumptions – Minor Concrete Repair**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Concrete Repair | 10 | 48 | 6 | 2 | Excavators | 1 | 5 |
| | | | | | Backhoes (tractors/ loaders/ backhoes) | 1 | 5 |
| | | | | | Pumps | 2 | 5 |
| | | | | | Concrete saws (concrete/ industrial saws) | 1 | 5 |

**Table 8**
**Representative Project 3 Assumptions – Minor Concrete Repair**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| | | | | | Sweeper/ scrubber[1] | 1 | 2 |

**Notes:** Equipment and activities listed are from the Concrete Repair Methods Table assumptions sheet. Equipment types noted in parenthesis represent the equipment equivalent used in CalEEMod construction modeling. Emissions from the occasional use of dump trucks on site were assumed to be captured in the haul truck emissions.

[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

**Major Concrete Repair**

Of the 113 proposed MWMP segment FMPs, five segments (5%) are estimated to require major concrete repair. The Via Encantadoras Segment 3 was chosen to represent these activities. These activities were assumed to include the removal of 121 cubic yards of concrete. Maintenance scenario assumptions for major concrete repair are provided in Table 9.

**Table 9**
**Representative Project 4 Assumptions – Major Concrete Repair**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Concrete Repair | 80 | 48 | 6 | 16 | Excavators | 1 | 5 |
| | | | | | Backhoes (tractors/loaders/ backhoes) | 1 | 5 |
| | | | | | Rubber-tired dozers | 1 | 1 |
| | | | | | Pumps | 2 | 5 |
| | | | | | Concrete saws (concrete/industrial saws) | 1 | 5 |
| | | | | | Sweeper/scrubber[1] | 1 | 2 |

**Notes:** Equipment and activities listed are from the Facility Maintenance Plan Via Encantadoras Segment 3 assumptions sheet. Equipment types noted in parenthesis represent the equipment equivalent used in CalEEMod construction modeling. An additional rubber-tired dozer with occasional (1-hour per day) was included to capture additional emissions from the occasional use of a dump truck on site.

[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

### 2.3.2.3 Representative Earthen-Bottom Facility Maintenance Activities

The representative proposed earthen-bottom facility maintenance activities selected for this air quality analysis are described in this subsection. Table 10 presents a summary of the representative proposed earthen-bottom facility maintenance activities analyzed herein.

**Table 10**
**Representative Earthen-Bottom Facility Maintenance Activities Summary**

| Representative Project ID | Maintenance Activity Category | Approximate Number of FMP Segments Represented | Representative Facility Maintenance Plan(s) | Approximate Linear Feet | Approximate Cubic Yards |
|---|---|---|---|---|---|
| 5 | Earthen Facility Typical – 1 | 8 | Mission Bay – Mission Bay Drive Segment 1 | 1,000 | 2,600 |
| 6 | Earthen Facility Typical – 2 | 8 | Murphy Canyon Creek – Stadium Segment 1 | 1,700 | 3,800 |
| 7 | Earthen Facility Typical – 3 | 16 | Tecolote Creek – Genesee Segment 1 | 700 | 3,600 |
| 8 | Earthen Facility Typical – 4 | 15 | Mission Hills Canyon Creek – Titus Segment 1 | 80 | 200 |
| 9 | Earthen Facility Typical Outlet/Inlet Structure | 10 | Outlet/Inlet Structure – 4202 J Street | 115 | 32 |
| 10 | Tijuana River Smuggler's Gulch Project[a] | 2 | Tijuana River Smuggler's Gulch Project[a] | 8,300 | 30,000 |

**Source:** Appendix K to the MWMP EIR

[a] Tijuana River Smugglers Gulch represents two segments modeled as one project and is not doubled to determine estimated emissions from these segments.

Details and construction assumptions for each representative project are provided in the following sections.

**Earthen Facilities Typical – 1 through 4**

Of the 113 proposed MWMP segment FMPs, 47 segments (42%) are classified as earthen-bottom channel/ditch or basin facility maintenance areas. Due to the large proportion of these segments included in the MWMP, four representative projects were used for modeling: Mission Bay Drive, Murphy Canyon Creek Stadium, Tecolote Creek–Genesee, and Mission Hills Canyon Creek–Titus segments. Maintenance scenario assumptions for earthen-bottom facilities are provided in Tables 11, 12, 13, and 14.

**Table 11**
**Representative Project 5 Assumptions – Earthen-Bottom Facilities Typical – 1**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Maintenance Activities | 14 | 60 | 6 | 325 | Excavators | 1 | 8 |
| | | | | | Crushing/processing equipment[1] | 1 | 8 |
| | | | | | Crane | 1 | 4 |
| | | | | | Sweeper/scrubber[2] | 1 | 2 |
| Vegetation Clearing | 2 | 0 | 0 | 0 | Fuel-powered hand tools (concrete/industrial saws)[3] | 4 | 8 |
| Pre-Maintenance Pumping | 14 | 0 | 0 | 0 | Pumps | 2 | 8 |
| Pump Use | 3 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Notes:** Equipment and activities listed are from the FMP Mission Bay; Mission Bay Drive Segment assumptions sheet. Equipment types noted in parenthesis represent the equipment equivalent used in CalEEMod construction modeling.

1 Adjusted to 10 horsepower to reflect the use of EZ-Screen 1000XL.

2 Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

3 Adjusted to 9 horsepower to reflect the use of chainsaws.

**Table 12**
**Representative Project 6 Assumptions – Earthen Bottom Facilities Typical – 2**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Maintenance Activities | 45 | 72 | 2 | 238 | Excavators | 1 | 8 |
| | | | | | Pumps | 2 | 8 |
| | | | | | Rubber-tired dozers | 1 | 8 |
| | | | | | Skid steer loaders | 1 | 8 |

**Table 12**
**Representative Project 6 Assumptions – Earthen Bottom Facilities Typical – 2**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| | | | | | Sweepers/ scrubbers[1] | 1 | 2 |
| | | | | | Tractors/loaders/ backhoes | 1 | 8 |
| Haul to Remove Stockpile | 45 | 0 | 0 | 238 | N/A | N/A | N/A |
| Pump Use | 9 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Notes:** Equipment and activities listed are from the FMP Murphy Canyon Creek Stadium Segment 1 assumptions sheet.
N/A = Not applicable.
[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

**Table 13**
**Representative Project 7 Assumptions – Earthen-Bottom Facilities Typical – 3**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Maintenance Activities | 30 | 56 | 2 | 450 | Excavators | 1 | 8 |
| | | | | | Pumps | 2 | 8 |
| | | | | | Rubber-tired dozers | 1 | 8 |
| | | | | | Skid steer loaders | 1 | 8 |
| | | | | | Tractors/loaders/ backhoes | 1 | 8 |
| | | | | | Sweeper/ scrubber[1] | 1 | 2 |
| Pump Use | 3 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Notes:** Equipment and activities listed are from the FMP Tecolote Creek–Genesee assumptions sheet.

[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

**Table 14**
**Representative Project 8 Assumptions – Earthen Bottom Facilities Typical – 4**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Maintenance Activities | 14 | 48 | 2 | 26 | Excavators | 1 | 8 |
| | | | | | Pumps | 2 | 8 |
| | | | | | Rubber-tired dozers | 1 | 8 |
| | | | | | Skid steer loaders | 1 | 8 |
| | | | | | Tractors/ loaders/ backhoes | 1 | 8 |
| | | | | | Sweeper/ scrubber[1] | 1 | 2 |
| Pump Use | 3 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Note:** Equipment and activities listed are from the FMP Mission Hills Canyon Creek–Titus assumptions sheet.
[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

### Outlet and Inlet Structures

There are 10 structural FMPs (9% of the MWMP total) that involve outlet/inlet maintenance and repair. The 4202 J Street Outlet/Inlet structure was chosen to represent these projects. Maintenance scenario assumptions are provided in Table 15.

**Table 15**
**Representative Project 9 Assumptions – Outlet and Inlet Structure**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Inlet/Outlet Maintenance | 5 | 48 | 6 | 4 | Skid steer loaders | 1 | 5 |
| | | | | | Excavators | 1 | 5 |
| | | | | | Chainsaws (Concrete/ Industrial Saws) | 2 | 5 |
| | | | | | Sweeper/scrubber[1] | 1 | 2 |

**Notes:** Equipment and activities listed are from the FMP 4202 J Street assumptions sheet.
Equipment types noted in parenthesis represent the equipment equivalent used in CalEEMod construction modeling.
Emissions from the occasional use of dump trucks on site were assumed to be captured in the haul truck emissions.
[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

### Tijuana River Smuggler's Gulch Project

In addition to the representative projects, the MWMP would include one uncharacteristically large project, which does not resemble standard maintenance activities. The Tijuana River Smuggler's Gulch project maintenance scenario assumptions are provided in Table 16.

**Table 16**
**Representative Project 10 Assumptions – Tijuana River Smuggler's Gulch**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| Grading | 100 | 24 | 10 | 5,000 | Excavators | 2 | 6 |
| | | | | | Metal-tracked dozers (crawler tractors) | 2 | 6 |

**Table 16**
**Representative Project 10 Assumptions – Tijuana River Smuggler's Gulch**

| Maintenance Activity Phase | Days | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|---|
| | | *Average Daily Worker Trips* | *Average Daily Vendor Truck Trips* | *Total Haul Truck Trips* | *Equipment Type* | *Quantity* | *Usage Hours* |
| | | | | | Front-end loader (rubber-tired loader) | 1 | 6 |
| | | | | | Backhoe (tractor/loader/ backhoe) | 1 | 6 |
| | | | | | Ditch witch trencher (trencher) | 1 | 2 |
| | | | | | Skid steer/bobcat | 1 | 6 |
| | | | | | Sweeper/scrubber[1] | 1 | 2 |
| Pump Use | 25 | 0 | 0 | 0 | Pumps | 6 | 6 |

**Notes:** Equipment and activities listed are from the Tijuana River Valley Channel Maintenance Project Focused Air Quality and Greenhouse Gas Emissions Analysis Memorandum.
Equipment types noted in parenthesis represent the equipment equivalent used in CalEEMod construction modeling.
[1] Adjusted to 142 horsepower to reflect the weighted average of Global Sweeping 4 Wheel Center, Schwarze M6000, Tymco 500X, Allianz Johnston 4000SP, Allianz Johnston Madvac 4000, and Tymco 210SRE.

## 2.4 IMPACT ANALYSIS

### 2.4.1 WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN?

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the SDAB; specifically, the SIP and RAQS.[10] The federal $O_3$ maintenance plan, which is part of the SIP, was adopted in 2016. The SIP demonstrates 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 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain

[10] For the purpose of this discussion, the relevant federal air quality plan is the ozone maintenance plan (SDAPCD 2016a). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

the state air quality standards for $O_3$. 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 the county, to forecast 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 developing 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 MWMP would not conflict with existing zoning or General Plan land use designations for all proposed maintenance activities. Implementation of the MWMP would not result in an increase in employment, and would use existing City staff. Additionally, the MWMP would neither include a residential component that would increase local population growth, nor provide additional water supplies that would result in growth-inducing effects.

In summary, the MWMP would not provide for residential development growth or local employment growth; therefore, the MWMP 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 MWMP-proposed maintenance activities is considered to be anticipated in the SIP and RAQS. Because the proposed MWMP activities and associated vehicle trips are anticipated in local air quality plans, the MWMP would be consistent at a regional level with the underlying growth forecasts in the RAQS. Impacts would be **less than significant**.

**Mitigation Measures**

None required.

**Level of Significance After Mitigation**

Impacts would remain **less than significant** without mitigation.

### 2.4.2 WOULD THE PROJECT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS?

**Carbon Monoxide Hotspots**

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are

termed CO "hotspots." CO transport is extremely limited and disperses rapidly with distance from the source. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (LOS E or worse). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Individual proposed maintenance activities would be temporary and would not be a source of daily, long-term mobile-source emissions. Accordingly, proposed activities would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. In addition, due to 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. Maximum background CO levels in San Diego County, as shown in Table 3, are less than 25% of the 1-hour and 8-hour NAAQS and CAAQS and would be expected to improve further due to reductions in motor vehicle emissions. Based on these considerations, the MWMP would result in a **less-than-significant** impact to air quality with regard to potential CO hotspots.

**Toxic Air Contaminants**

In addition to impacts from criteria pollutants, MWMP 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 are residences and recreation centers located directly adjacent to the proposed MWMP segments.

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 of MWMP components would not require the extensive ongoing use of heavy-duty construction equipment, which is subject to a CARB airborne toxic control measure (ATCM) for in-use diesel construction equipment to reduce diesel particulate emissions, and would

not involve extensive ongoing use of diesel trucks, which are also subject to an ATCM. Construction of MWMP components would occur in multiple phases over 5 to 10 years. Following completion of construction activities, MWMP-related TAC emissions would cease.

CARB has published the *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and, therefore, could conflict with sensitive land uses, such as schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities. The MWMP would neither include sensitive land uses nor would it generate substantial short-term TAC concentrations or include long-term TAC sources on site that would impact potential sensitive land use receptors. Accordingly, the MWMP would not generate substantial TAC emissions that would conflict with surrounding sensitive receptors, and impacts would be **less than significant**.

**Health Impacts of Criteria Air Pollutants**

As presented in Table 18, implementation of the MWMP would generate criteria air pollutant emissions that would not exceed the SDAPCD mass-daily emission thresholds for VOC, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. However, the SDAPCD daily threshold for $NO_x$ would be exceeded during maximum daily MWMP implementation. As presented in Table 2, the SDAB is a nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$ under the NAAQS and/or CAAQS. The potential health effects associated with pollutants are presented in Section 2.1.2, Pollutants and Effects.

VOCs and $NO_x$ are precursors to $O_3$, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with $O_3$ are generally associated with reduced lung function. The contribution of VOCs and $NO_x$ to regional ambient $O_3$ concentrations is the result of complex photochemistry. The increases in $O_3$ concentrations in the SDAB due to $O_3$ 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 $O_3$ concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the $O_3$ ambient air quality standards tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of $O_3$ precursors is speculative because of the lack of quantitative methods to assess this impact. Nonetheless, because $NO_x$ emissions associated with MWMP implementation would exceed the SDAPCD mass daily construction screening-level threshold, it could minimally contribute to regional $O_3$ concentrations and the associated health impacts. Accordingly, impacts would be **potentially significant**.

Although MWMP implementation would generate $NO_x$ emissions that would exceed the SDAPCD mass daily thresholds, MWMP-proposed maintenance activities are not anticipated to contribute to exceedances of the NAAQS and CAAQS for $NO_2$ because the SDAB is designated as in attainment of

the NAAQS and CAAQS for $NO_2$, and the existing $NO_2$ concentrations in the area are well below the NAAQS and CAAQS standards. Health impacts that result from $NO_2$ and $NO_x$ include respiratory irritation; however, because the majority of the MWMP activities would be short-term activities, nearby receptors would not be exposed to off-road equipment exhaust for a prolonged period of time. Therefore, potential health impacts associated with $NO_2$ and $NO_x$ would be **less than significant.**

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots were discussed previously and are determined to be a less-than-significant impact. Thus, the MWMP's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction activities associated with the MWMP would not exceed thresholds for $PM_{10}$ or $PM_{2.5,}$ would not contribute to exceedances of the NAAQS and CAAQS for particulate matter, and would not obstruct the SDAB from coming into attainment for these pollutants. The MWMP would also not result in substantial DPM emissions during construction and, therefore, would not result in significant health effects related to DPM exposure. Because of the minimal contribution of particulate matter during construction, health impacts would be **less than significant**.

Because estimated emissions resulting from implementation of 10 concurrent maintenance activities would exceed the SDAPCD screening-level threshold for $NO_x$ construction, as discussed in Section 2.4.4, the MWMP could result in a **potentially significant** contribution to regional concentrations of non-attainment pollutants; therefore, mitigation is required.

**Valley Fever Exposure**

As discussed in Section 2.1.2.2, Non-Criteria Air Pollutants, Valley Fever is not highly endemic to San Diego County, and within San Diego County, the incidence rate in the MWMP program area is below the statewide average. Construction of the MWMP would comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Strategies the MWMP would implement to comply with SDAPCD Rule 55 and control dust include watering two times per day. Based on the low incidence rate of Coccidioidomycosis in the MWMP program area and in greater San Diego County, and the MWMP's implementation of dust control strategies, it is not anticipated maintenance activities would result in exposure of nearby sensitive receptors to Valley Fever. Therefore, the MWMP would have a **less-than-significant** impact with respect to Valley Fever exposure for sensitive receptors.

**Mitigation Measures**

To reduce $NO_x$ emissions from implementation of MWMP maintenance activities, MM-AQ-1, requiring Tier 4 Interim construction equipment, would be implemented. Following implementation

of MM-AQ-1, $NO_x$ emissions would be reduced to a level below the SDAPCD screening-level threshold. As such, impacts regarding $NO_x$ emissions would be below the thresholds of significance.

**Level of Significance After Mitigation**

Impacts would be **less than significant** with mitigation incorporated.

### 2.4.3 WOULD THE PROJECT RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS) ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE?

Any other potential emissions (such as those leading to odors) produced during implementation of the maintenance activities would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, and architectural coatings that would disperse rapidly from the maintenance site and generally occur at magnitudes that would not affect substantial numbers of people; therefore, impacts would be **less than significant**.

**Mitigation Measures**

None required.

**Level of Significance After Mitigation**

Impacts would remain **less than significant**.

### 2.4.4 WOULD THE PROJECT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF ANY CRITERIA POLLUTANT FOR WHICH THE PROJECT REGION IS NON-ATTAINMENT UNDER AN APPLICABLE FEDERAL OR STATE AMBIENT AIR QUALITY STANDARD?

Proposed maintenance activities would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from construction equipment at maintenance activity sites, as well as from off-site trucks hauling excavated earth materials. Construction emissions could vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed in Section 2.3.2, Approach and Methodology, criteria air pollutant emissions associated with implementation of proposed maintenance activities were quantified using CalEEMod, version

2016.3.2. Default values provided in CalEEMod were used where detailed representative project information was not available. A detailed depiction of the construction schedule, including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles, is included Tables 5 through 16 for each representative project described in Section 2.3.2.

Maintenance activities must adhere to SDAPCD Rule 50 (Visible Emissions), Rule 51 (Nuisance), and Rule 55 (Fugitive Dust) during construction-related activities, which would assist in minimizing MWMP-generated fugitive dust emissions.

For the purpose of this air quality analysis, all MWMP activities are evaluated as short-term construction-related activities and are compared to the SDAPCD daily construction screening-level thresholds for criteria air pollutants, which are the same as the SDAPCD daily operational screening-level thresholds, to determine the MWMP's potential to result in significant impacts to air quality.

Table 17 presents the estimated maximum unmitigated daily construction emissions generated during implementation of the representative projects evaluated for each of the 10 representative projects, including the nine maintenance activity categories and the Tijuana River Smuggler's Gulch Project.

**Table 17**
**Estimated Maximum Daily Construction**
**Emissions by Representative Project (Unmitigated)**

| Representative Project ID | Maintenance Activity Category | VOCs | NOx | CO | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|
| | | *Pounds per Day* | | | | | |
| 1 | Concrete with Vegetation Removal (20% or more vegetated) | 3.20 | 25.86 | 24.67 | 0.04 | 2.23 | 1.67 |
| 2 | Concrete with Vegetation Removal (less than 20% vegetated) | 4.01 | 37.43 | 29.05 | 0.06 | 2.82 | 2.09 |
| 3 | Minor concrete repair | 1.63 | 13.91 | 12.46 | 0.02 | 1.01 | 0.85 |
| 4 | Major concrete repair | 1.94 | 17.10 | 14.32 | 0.03 | 1.43 | 0.99 |

**Table 17**
**Estimated Maximum Daily Construction**
**Emissions by Representative Project (Unmitigated)**

| Representative Project ID | Maintenance Activity Category | VOCs | NOx | CO | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|
| | | *Pounds per Day* | | | | | |
| 5 | Earthen Facility Typical – 1 | 3.68 | 35.50 | 26.51 | 0.06 | 2.85 | 1.92 |
| 6 | Earthen Facility Typical – 2 | 4.46 | 54.35 | 27.72 | 0.10 | 34.33 | 19.14 |
| 7 | Earthen Facility Typical – 3 | 5.86 | 53.59 | 40.12 | 0.08 | 6.60 | 4.54 |
| 8 | Earthen Facility Typical – 4 | 4.88 | 42.33 | 29.76 | 0.05 | 5.61 | 3.98 |
| 9 | Earthen Facility Typical Outlet/Inlet Structure | 0.77 | 6.24 | 6.17 | 0.01 | 0.70 | 0.36 |
| 10 | Tijuana River Smuggler's Gulch Project | 6.49 | 64.10 | 38.79 | 0.10 | 42.53 | 7.51 |

**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter. See Appendix A for complete results.
Year 2018 was conservatively assumed to represent the year of construction.
The $PM_{10}$ and $PM_{2.5}$ estimates reflect control of fugitive dust consistent required by SDAPCD Rule 55.

As discussed in Section 2.3.2, Approach and Methodology, it is anticipated that the maximum number of maintenance activities that would be implemented concurrently (i.e., within the same day) is 10. The 10 concurrent maintenance activities would include one occurrence of representative projects 1, 2, 3, 4, 5, 7, 8, and 10, and two occurrences of representative project 9. Representative project 6 is not included in the maximum concurrent scenario because only one earthen facility typical 1 and 2 would occur at a time. Table 18 presents the estimated maximum unmitigated daily construction emissions generated during implementation of the 10 concurrent maintenance activities, and compares estimated total daily emissions to the SDAPCD screening-level thresholds, as shown in Table 18.

**Table 18**
**Estimated Maximum Daily Construction Emissions from Concurrent Project Implementation (Unmitigated)**

| Representative Project ID | Maintenance Activity Category | Occurrence | VOCs | NOx | CO | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| | | | *Pounds per Day* | | | | | |
| 1 | Concrete with Vegetation Removal (20% or more vegetated) | 1 | 3.20 | 25.86 | 24.67 | 0.04 | 2.23 | 1.67 |
| 2 | Concrete with Vegetation Removal (less than 20% vegetated) | 1 | 4.01 | 37.43 | 29.05 | 0.06 | 2.82 | 2.09 |
| 3 | Minor Concrete Repair | 1 | 1.63 | 13.91 | 12.46 | 0.02 | 1.01 | 0.85 |
| 4 | Major Concrete Repair | 1 | 1.94 | 17.10 | 14.32 | 0.03 | 1.43 | 0.99 |
| 5 | Earthen Facility Typical – 1 | 1 | 3.68 | 35.50 | 26.51 | 0.06 | 2.85 | 1.92 |
| 7 | Earthen Facility Typical – 3 | 1 | 5.86 | 53.59 | 40.12 | 0.08 | 6.60 | 4.54 |

**Table 18**
**Estimated Maximum Daily Construction Emissions from Concurrent Project Implementation (Unmitigated)**

| Representative Project ID | Maintenance Activity Category | Occurrence | VOCs | NOx | CO | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| | | | *Pounds per Day* | | | | | |
| 8 | Earthen Facility Typical – 4 | 1 | 4.88 | 42.33 | 29.76 | 0.05 | 5.61 | 3.98 |
| 9 | Earthen Facility Typical Outlet/Inlet Structure | 2 | 1.54 | 12.48 | 12.34 | 0.03 | 1.41 | 0.72 |
| 10 | Tijuana River Smuggler's Gulch (two segments) | 1 | 6.49 | 64.10 | 38.79 | 0.10 | 42.53 | 7.51 |
| **Maximum Daily Emissions** | | | **33.22** | **302.30** | **228.03** | **0.49** | **66.50** | **24.27** |
| *SDAPCD Threshold* | | | *137[a]* | *250* | *550* | *250* | *100* | *55* |
| Threshold Exceeded? | | | No | **Yes** | No | No | No | No |

**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District. See Appendix A for complete results.

[a] VOC threshold based on the significance thresholds recommended by the Monterey Bay Air Resources District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for $O_3$

Year 2018 was conservatively assumed to represent the year of construction.

The $PM_{10}$ and $PM_{2.5}$ estimates reflect control of fugitive dust consistent required by SDAPCD Rule 55.

Representative project 6 is not included as it is not included in the maximum concurrent project assumptions.

As shown in Table 18, estimated maximum daily MWMP-generated emissions would not exceed the SDAPCD construction thresholds for VOCs, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. Maximum daily MWMP-generated emissions would exceed the SDAPCD construction threshold for $NO_x$.

In analyzing cumulative impacts from the MWMP, the analysis must specifically evaluate the MWMP's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If the MWMP does not exceed thresholds and is determined to have less-than-significant impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the MWMP's proposed maintenance activities, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the MWMP 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).

The SDAB has been designated as a federal nonattainment area for $O_3$ and a state nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$. As discussed previously, the emissions of $NO_x$ would be above SDAPCD thresholds before mitigation.

Similar to project-level maintenance activities, program-level maintenance activities would take place at multiple locations concurrently. Air pollutant emissions would vary day-to-day as a result of how many maintenance activities are occurring at once. The maximum daily air pollutant emissions would exceed the City's $NO_x$ threshold if four or more activities were occurring concurrently.[11] The combined emissions of the 10 concurrent maintenance activities, which represent the maximum daily construction scenario, exceed the project-level SDAPCD significance threshold for $NO_x$ prior to implementation of mitigation. Should other projects occur in the vicinity of the proposed MWMP, significant impacts related to $NO_x$ emissions could be further intensified due to roadway emissions from motor vehicles proximate to many MWMP segments; therefore, this impact would be **potentially significant** absent mitigation.

**Mitigation Measures**

To reduce $NO_x$ emissions from construction activities, MM-AQ-1 is required.

**MM-AQ-1** **Tier 4 Interim Construction Equipment.** Prior to the commencement of any four or more concurrent construction activities, the City of San Diego Transportation & Storm Water Department (TSW) or its designee shall sum the estimated corresponding

[11] This reflects a conservative estimate based on the four largest projects. Project-level activities are not expected to increase maximum daily or annual activities as those scenarios were based on the City's staff and equipment capacity.

maximum daily construction nitrogen oxide ($NO_x$) emissions from Table 17, Estimated Maximum Daily Construction Emissions By Representative Project (Unmitigated), to determine if the combined emissions exceed the San Diego Air Pollution Control District (SDAPCD) construction threshold of 250 pounds per day for $NO_x$. If the combined $NO_x$ emissions exceed the SDAPCD threshold, TSW or its designee shall provide evidence that, for off-road equipment with engines rated at 75 horsepower or greater, no equipment shall be used that is less than Tier 4 Interim. An exemption from these requirements may be granted if TSW documents that equipment with the required tier is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment. Before an exemption may be considered by the Environmental Designee/Mitigation Monitoring Coordination, TSW shall be required to demonstrate that three construction fleet owners/operators in the San Diego region were contacted and that those owners/operators confirmed Tier 4 Interim equipment could not be located within the San Diego region. If Tier 4 Interim equipment is not reasonably available, then all diesel-powered equipment, equal to or greater than 75 horsepower, shall have at least California Air Resources Board-certified Tier 3 engines with the most effective Verified Diesel Emission Control Strategies available for the engine type, such as Level 3 Diesel Particulate Filters (Tier 4 engines automatically meet this requirement), which provides an equivalent reduction.

**Level of Significance After Mitigation**

Table 19 presents the estimated maximum mitigated daily construction emissions generated during construction of the 10 concurrent maintenance activities determined to represent the maximum daily capacity. Estimated mitigated emissions presented in Table 19 assume implementation of MM-AQ-1, which assumes that all off-road equipment with engines rated at 75 horsepower or greater will meet Tier 4 Interim emission standards.

Additionally, the MWMP would not regularly include 10 concurrent projects, and would normally represent NOx emissions far below the SDAPCD screening threshold. The MWMP would also include projects in various locations around the City, and would not represent a localized source of significant emissions. As such, impacts regarding NOx emissions during maintenance activities would be below the thresholds of significance after the incorporation of MM-AQ-1.

As shown in Table 19, after implementation of MM-AQ-1, estimated maximum daily MWMP construction emissions would not exceed the SDAPCD construction thresholds for VOCs, $NO_x$, CO, $SO_x$, $PM_{10}$, or $PM_{2.5}$. Thus, impacts would be **less than significant** with mitigation incorporated.

**Table 19**
**Estimated Maximum Daily Construction Emissions (Mitigated)**

| Representative Project ID | Maintenance Activity Category | Occurrence | VOCs | NOx | CO | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| | | | *Pounds per Day* | | | | | |
| 1 | Concrete with Vegetation Removal (20% or more vegetated) | 1 | 0.82 | 15.54 | 25.79 | 0.04 | 0.58 | 0.19 |
| 2 | Concrete with Vegetation Removal (less than 20% vegetated) | 1 | 1.54 | 19.80 | 30.91 | 0.06 | 1.23 | 0.54 |
| 3 | Minor Concrete Repair | 1 | 0.41 | 7.34 | 13.08 | 0.02 | 0.18 | 0.07 |
| 4 | Major Concrete Repair | 1 | 0.68 | 8.82 | 14.64 | 0.03 | 0.50 | 0.18 |
| 5 | Earthen Facility Typical – 1 | 1 | 1.21 | 22.67 | 28.57 | 0.06 | 1.27 | 0.37 |
| 7 | Earthen Facility Typical – 3 | 1 | 1.55 | 28.18 | 42.74 | 0.08 | 3.84 | 1.87 |
| 8 | Earthen Facility Typical – 4 | 1 | 1.30 | 22.96 | 31.39 | 0.05 | 4.49 | 2.95 |
| 9 | Earthen Facility Typical Outlet/Inlet Structure | 2 | 0.72 | 7.95 | 12.78 | 0.03 | 0.99 | 0.33 |

**Table 19**
**Estimated Maximum Daily Construction Emissions (Mitigated)**

| Representative Project ID | Maintenance Activity Category | Occurrence | VOCs | NOx | CO | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|---|---|
| | | | *Pounds per Day* | | | | | |
| 10 | Tijuana River Smuggler's Gulch (two segments) | 1 | 2.44 | 35.45 | 43.92 | 0.10 | 39.94 | 5.03 |
| **Maximum Daily Emissions** | | | **10.67** | **168.71** | **243.82** | **0.47** | **53.02** | **11.53** |
| *SDAPCD Threshold* | | | *137[a]* | *250* | *550* | *250* | *100* | *55* |
| Threshold Exceeded? | | | No | No | No | No | No | No |

**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District.
See Appendix A for complete results.
[a] VOC threshold based on the significance thresholds recommended by the Monterey Bay Air Resources District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for $O_3$.
Year 2018 was conservatively assumed to represent the year of construction.
The $PM_{10}$ and $PM_{2.5}$ estimates reflect control of fugitive dust consistent with required by SDAPCD Rule 55.
Emissions from Tier 4 Interim engines, which are required for MM-AQ-1, decrease $NO_x$ emissions, but result in increases in other pollutants (i.e., CO and $SO_x$).

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# 3 GREENHOUSE GAS EMISSIONS

## 3.1 ENVIRONMENTAL SETTING

### 3.1.1 CLIMATE CHANGE OVERVIEW

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and is the most significant driver of observed climate change (EPA 2017a; IPCC 2013). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.3.2, Potential Effects of Climate Change.

### 3.1.2 GREENHOUSE GASES

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include $CO_2$, $CH_4$, $N_2O$, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride ($SF_6$), and nitrogen trifluoride ($NF_3$). (See also CEQA Guidelines Section 15364.5.)[12] Some GHGs, such as $CO_2$, $CH_4$, and $N_2O$, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, $CO_2$ and $CH_4$ are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than $CO_2$, include fluorinated gases, such as HFCs, PFCs, and $SF_6$, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[13]

**Carbon Dioxide.** $CO_2$ is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of $CO_2$ include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate $CO_2$ are from the combustion of fuels such as coal, oil, natural gas, and wood, and from changes in land use.

**Methane.** $CH_4$ is produced through both natural and human activities. $CH_4$ is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** $N_2O$ is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create $N_2O$. Sources of $N_2O$ include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using $N_2O$ as a propellant (such as in rockets, racecars, and aerosol sprays).

[12] Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code 38505 as impacts associated with other climate forcing substances are not evaluated herein.

[13] The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (1995), IPCC Fourth Assessment Report (2007), CARB's "Glossary of Terms Used in GHG Inventories" (CARB 2015), and EPA's "Glossary of Climate Change Terms" (EPA 2016d).

**Fluorinated Gases.** Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbon (CFCs), hydrochlorofluorocarbons (HCFCs), and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** $SF_6$ is a colorless gas soluble in alcohol and ether, and is slightly soluble in water. $SF_6$ is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** $NF_3$ is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

### 3.1.3 GLOBAL WARMING POTENTIAL

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2016d). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is $CO_2$; therefore, GWP-weighted emissions are measured in MT $CO_2e$.

The current version of CalEEMod (version 2016.3.2) assumes that the GWP for $CH_4$ is 25 (so emissions of 1 MT of $CH_4$ are equivalent to emissions of 25 MT of $CO_2$), and the GWP for $N_2O$ is 298, based on the *IPCC Fourth Assessment Report* (IPCC 2007). The GWP values identified in CalEEMod were applied to the MWMP.

## 3.2 REGULATORY SETTING

### 3.2.1 FEDERAL REGULATIONS

**Massachusetts v. EPA.** In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—$CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."
- The Administrator further found the combined emissions of GHGs—CO2, CH4, N2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

**Energy Independence and Security Act of 2007.** The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and directs National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

**Federal Vehicle Standards.** In response to the U.S. Supreme Court ruling, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and

the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of $CO_2$ in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the EPA finalized its decision to maintain the current greenhouse (GHG) emissions standards for model years 2022–2025 cars and light trucks (EPA 2017b).

In addition to the regulations applicable to cars and light-duty trucks, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for $CO_2$ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower $CO_2$ emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

### 3.2.2 STATE REGULATIONS

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes EOs, ABs, SBs, and other regulations and plans that would directly or indirectly reduce GHG emissions.

**EO S-3-05.** EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issued reports from 2006 to 2010 (CAT 2016).

**AB 32.** In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

**SB 32 and AB 197.** SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to the Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

**CARB's 2007 Statewide Limit**. In 2007, in accordance with California Health and Safety Code, Section 38550, CARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million metric tons [MMT] $CO_2e$).

**CARB's Climate Change Scoping Plan**. One specific requirement of AB 32 is for CARB to prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code, Section 38561(a)), and to update the scoping plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan) included a mix of recommended strategies that

combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
2. Achieving a statewide renewable energy mix of 33%
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS) (17 CCR Section 95480 et seq.)
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations.

In 2014, CARB approved the first update to the Scoping Plan. The *First Update to the Climate Change Scoping Plan: Building on the Framework* (*First Update)* defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EOs S-3-05 and B-16-2012. The *First Update* concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The *First Update* recommended a mix of technologies in key economic sectors to reduce emissions through 2050, including energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and, the rapid market penetration of efficient and clean energy technologies. As part of the *First Update*, CARB recalculated the state's

1990 emissions level, using more recent global warming potentials identified by the Intergovernmental Panel on Climate Change, from 427 MMT $CO_2e$ to 431 MMT $CO_2e$ (CARB 2014).

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. The Governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In January 2017, CARB released the *2017 Climate Change Scoping Plan Update (2030 Scoping Plan)* for public review and comment (CARB 2017b). The *2030 Scoping Plan* builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' "known commitments" include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%.

For local governments, the *2030 Scoping Plan* replaced the initial Scoping Plan's 15% reduction goal with a recommendation to aim for a community-wide goal of no more than 6 MT $CO_2e$ per capita by 2030 and no more than 2 MT $CO_2e$ per capita by 2050, which are consistent with the state's long-term goals. These goals are also consistent with the Under 2 Memorandum of Understanding (Under 2 2016) and the Paris Agreement, which are developed around the scientifically based levels necessary to limit global warming below 2 degrees Celsius (°C). The *2030 Scoping Plan* recognized the benefits of local government GHG planning (e.g., through CAPs) and provide more information regarding tools CARB is working on to support those efforts. It also recognizes the CEQA streamlining provisions for project-level review where there is a legally adequate CAP.[14] The *2030 Scoping Plan* was adopted on December 14, 2017.

[14] Pursuant to CEQA Guidelines Section 15183.5, lead agencies may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long-range development

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. As discussed in several cases, a given project need not be in perfect conformity with every planning policy or goal to be consistent. A project would be consistent if it will further the objectives and not obstruct their attainment.

**CARB's Regulations for the Mandatory Reporting of Greenhouse Gas Emissions.** In general, entities subject to CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17 CCR 95100–95157) that emit more than 10,000 MT $CO_2e$ per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT $CO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third-party verified.

**EO B-18-12.** EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. EO B-18-12 also established goals for existing state buildings for reducing grid-based energy purchases and water use.

**EO B-30-15.** EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Scoping Plan to express the 2030 target in terms of MMT $CO_2e$. The EO also called for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

**SB 605 and SB 1383.** SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of SLCPs in the state; and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its *Short-Lived Climate Pollutant Reduction Strategy* (*SLCP Reduction Strategy*) in March 2017. The *SLCP Reduction Strategy* establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

plan, or a separate plan to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review.

**Mobile Sources**

**AB 1493.** AB 1493 (Pavley) (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's $CO_2$ emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

**Heavy-Duty Diesel**. CARB adopted the final Heavy Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce PM and $NO_x$ emissions from heavy-duty diesel vehicles. The rule requires PM filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule will require nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR 2485).

**EO S-1-07.** EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining LCFS for GHG emissions measured in $CO_2$e grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (17 CCR 95480 et seq.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered.

**SB 375.** SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise an SCS to achieve the GHG reduction target, the metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), an SCS does not (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets for SANDAG are a 7% reduction in emissions per capita by 2020 and a 13% reduction by 2035.

SANDAG completed and adopted its *2050 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) in October 2011. In November 2011, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. The case was resolved and decided upon in July 2017 by the California Supreme Court; the court found that SANDAG's EIR did not have to use EO S-3-05's 2050 goal of an 80% reduction in GHG emissions from 1990 levels as a significance threshold because the EIR sufficiently informed the public of the potential impacts.

Although the EIR for SANDAG's 2050 RTP/SCS was pending before the California Supreme Court, in 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted *San Diego Forward: The Regional Plan*. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

**Advanced Clean Cars Program and Zero-Emissions Vehicle Program**. The Advanced Clean Cars program (January 2012) is a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, adopted new GHG standards for model year 2017 to

2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

**EO B-16-12.** EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

**Water**

**EO B-29-15.** In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water usage in 2013. The term of the EO extended through February 28, 2016, although many of its directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

**Solid Waste**

**AB 939 and AB 341.** In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (Chapter 476, Statutes of 2011 (Chesbro)) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources

Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops and in August 2015 published a discussion document titled AB 341 Report to the Legislature, which identifies five priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020, legislative and regulatory recommendations and an evaluation of program effectiveness (CalRecycle 2017).

**Other State Actions**

**Senate Bill 97.** SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4(a)). The Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)). The Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a Lead Agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009a).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG

emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

**EO S-13-08.** EO S-13-08 (November 2008) was intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. It directed state agencies to take specified actions to assess and plan for such impacts. It directed the CNRA, in cooperation with the California Department of Water Resources, CEC, California's coastal management agencies, and the Ocean Protection Council, to request that the National Academy of Sciences prepare a *Sea-Level Rise Assessment Report* by December 1, 2010. The Ocean Protection Council, California Department of Water Resources, and CEC, in cooperation with other state agencies, were required to conduct a public workshop to gather information relevant to the *Sea-Level Rise Assessment Report*. The Business, Transportation, and Housing Agency was ordered to assess within 90 days of issuance of the EO the vulnerability of the state's transportation systems to sea-level rise. The Governor's Office of Planning and Research and the CNRA are required to provide land use planning guidance related to sea-level rise and other climate change impacts. The EO also required the other state agencies to develop adaptation strategies by June 9, 2009, to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. A discussion draft adaptation strategies report was released in August 2009, and the final *2009 California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009b). An update to the 2009 report, *Safeguarding California: Reducing Climate Risk*, was issued in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarized key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water.

## 3.2.3 LOCAL REGULATIONS

### City of San Diego General Plan

The State of California requires cities and counties to prepare and adopt a general plan to set out a long-range vision and comprehensive policy framework for its future. The state also mandates that general plans be updated periodically to ensure relevance and utility. The City General Plan 2008 (General Plan) was unanimously adopted by the City Council on March 10, 2008, with additional amendments approved in December 2010, January 2012, and June 2015. The General Plan builds upon many of the goals and strategies of the former 1979 General Plan, in addition to offering new policy direction in the areas of urban form, neighborhood character, historic preservation, public

facilities, recreation, conservation, mobility, housing affordability, economic prosperity, and equitable development. It recognizes and explains the critical role of the community planning project as the vehicle to tailor the City of Villages strategy for each neighborhood. It also outlines the general plan amendment process, and other implementation strategies, and considers the continued growth of the City beyond 2020 (City of San Diego 2015a).

The Conservation Element contains policies to guide the conservation of resources that are fundamental components of San Diego's environment, that help define the City's identity, and that are relied upon for continued economic prosperity. The purpose of this element is to help the City become an international model of sustainable development and conservation and to provide for the long-term conservation and sustainable management of the rich natural resources that help define the City's identity, contribute to its economy, and improve its quality of life.

The City has also adopted the following General Plan Conservation Element policies (City of San Diego 2015a) related to climate change:

- **CE-A.2.** Reduce the City's carbon footprint. Develop and adopt new or amended regulations, projects, and incentives as appropriate to implement the goals and policies set forth in the General Plan to:
    - Create sustainable and efficient land use patterns to reduce vehicular trips and preserve open space;
    - Reduce fuel emission levels by encouraging alternative modes of transportation and increasing fuel efficiency;
    - Improve energy efficiency, especially in the transportation sector and buildings and appliances;
    - Reduce the Urban Heat Island effect through sustainable design and building practices, as well as planting trees (consistent with habitat and water conservation policies) for their many environmental benefits, including natural carbon sequestration;
    - Reduce waste by improving management and recycling projects;
    - Plan for water supply and emergency reserves.
- **CE-A.8.** Reduce construction and demolition waste in accordance with Public Facilities Element, Policy PF-1.2, or by renovating or adding on to existing buildings, rather than constructing new buildings.
- **CE-A.9.** Reuse building materials, use materials that have recycled content, or use materials that are derived from sustainable or rapidly renewable sources to the extent possible, through factors including:

  - Scheduling time for deconstruction and recycling activities to take place during project demolition and construction phases;
  - Using life cycle costing in decision-making for materials and construction techniques. Life cycle costing analyzes the costs and benefits over the life of a particular product, technology, or system.
- **CE-F.3.** Continue to use methane as an energy source from inactive and closed landfills.
- **CE-I.4.** Maintain and promote water conservation and waste diversion projects to conserve energy.
- **CE-I.5.** Support the installation of photovoltaic panels, and other forms of renewable energy production.
  - Seek funding to incorporate renewable energy alternatives in public buildings.
  - Promote the use and installation of renewable energy alternatives in new and existing development.
- **CE-I.10.** Use renewable energy sources to generate energy to the extent feasible.

**City of San Diego Climate Action Plan**

In December 2015, the City adopted its final CAP (City of San Diego 2015b). A Program EIR was prepared for the City's Draft CAP, which was certified in December 2015. With implementation of the CAP, the City aims to reduce emissions 15% below the baseline to approximately 11.1 MMT $CO_2e$ by 2020, 40% below the baseline to approximately 7.8 MMT $CO_2e$ by 2030, and 50% below the baseline to approximately 6.5 MMT $CO_2e$ by 2035. It is anticipated that the City would exceed its reduction target by 1.3 MMT $CO_2e$ in 2020, 176,528 MT $CO_2e$ in 2030, and 127,135 MT $CO_2e$ in 2035 with implementation of the CAP. The CAP relies on significant City and regional actions, continued implementation of federal and state mandates, and five local strategies with associated action steps for target attainment. The City has identified the following five strategies to reduce GHG emissions to achieve the 2020 and 2035 targets:

1. Energy and water efficient buildings;
2. Clean and renewable energy;
3. Bicycling, walking, transit, and land use;
4. Zero waste (gas and waste management); and
5. Climate resiliency.

Implementation of the CAP is divided into three actions:

- Early Actions (Adoption of the CAP–December 31, 2017)

- Mid-Term Actions (January 1, 2018–December 31, 2020)
- Longer-Term Actions (2021–2035)

The CAP meets the requirements set forth in CEQA Guidelines Section 15183.5, whereby a lead agency (e.g., the City of San Diego) may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long-range development plan, or a separate plan to reduce GHG emissions.

In June 2017, the City amended the CAP to include a CAP Consistency Checklist, to provide a streamlined review process for the GHG emissions analysis of proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA. The CAP Consistency Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP, as determined through the use of the CAP Consistency Checklist, may rely on the CAP for the cumulative impacts analysis of GHG emissions. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

## 3.3 GREENHOUSE GAS INVENTORIES AND CLIMATE CHANGE CONDITIONS

### 3.3.1 SOURCES OF GREENHOUSE GAS EMISSIONS

Per the U.S. Environmental Protection Agency's (EPA) *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2016* (EPA 2018), total U.S. GHG emissions were approximately 6,511.3 million metric tons (MMT) carbon dioxide equivalent ($CO_2e$) in 2016. The primary GHG emitted by human activities in the United States was $CO_2$, which represented approximately 81.6% of total GHG emissions (5,310.9 MMT $CO_2e$). The largest source of $CO_2$, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.5% of $CO_2$ emissions in 2016 (4,966.0 MMT $CO_2e$). Relative to 1990, gross U.S. GHG emissions in 2016 were higher by 2.4%, down from a high of 15.7% above 1990 levels in 2007. GHG emissions decreased from 2015 to 2016 by 1.9% (126.8 MMT $CO_2e$), and net emissions in 2016 were 11.1% below 2005 levels (EPA 2018).

According to California's 2000–2016 GHG Emissions Inventory (2018 edition), California emitted 429 MMT $CO_2e$ in 2016, including emissions resulting from out-of-state electrical generation (CARB 2017b). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high GWP substances, and recycling and waste. The California GHG emissions source

categories and their relative contributions in 2016 are presented in Table 20, Greenhouse Gas Emissions Sources in California.

**Table 20**
**Greenhouse Gas Emissions Sources in California**

| Source Category | Annual GHG Emissions (MMT $CO_2e$) | Percent of Total* |
|---|---|---|
| Transportation | 176.1 | 41% |
| Industrial | 98.8 | 23% |
| Electricity (in state) | 42.9 | 10% |
| Electricity (imports) | 25.8 | 6% |
| Agriculture | 34.4 | 8% |
| Residential | 30.1 | 7% |
| Commercial | 21.5 | 5% |
| **Total** | **429.4** | **100%** |

**Source:** CARB 2017b
MMT $CO_2e$ = million metric tons of carbon dioxide equivalent per year
* Column may not add due to rounding.

Between 2000 and 2016, per-capita GHG emissions in California have dropped from a peak of 14 MT per person in 2001 to 10.8 MT per person in 2016, representing a 23% decrease. In addition, total GHG emissions in 2015 were approximately 12 MMT $CO_2e$ less than 2015 emissions (CARB 2017b).

The City's community-wide GHG emissions baseline inventory in 2010 was estimated to be 13,019,591 MT $CO_2E$ (City of San Diego 2015b). Transportation is the largest contributor to the emissions, accounting for 54% of the City's 2010 total, followed by electricity at 24% of the emissions. Accounting for future population and economic growth, the City projects GHG emissions of 14,067,316 MT $CO_2E$ in 2020 and 16,427,118 MT $CO_2E$ in 2035 (City of San Diego 2015b).

### 3.3.2 POTENTIAL EFFECTS OF CLIMATE CHANGE

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 *Intergovernmental Panel on Climate Change Synthesis Report* (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a 0.2°C rise in average global tropospheric temperature per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The average temperatures in California have increased, leading to more extreme hot days and fewer cold nights. Shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year. Sea levels have risen, and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

An increase in annual average temperature is a reasonably foreseeable effect of climate change. Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada (CCCC 2012). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1°F to 8.6°F, depending on emissions levels. Springtime warming—a critical influence on snowmelt—will be particularly pronounced. Summer temperatures will rise more than winter temperatures, and the increases will be greater in inland California, compared to the coast. Heat waves will be more frequent, hotter, and longer. There will be fewer extremely cold nights (CCCC 2012). A decline of Sierra Nevada snowpack, which accounts for approximately half of the surface water storage in California, by 30% to as much as 90% is predicted over the next 100 years (CAT 2006).

Model projections for precipitation over California continue to show the Mediterranean pattern of wet winters and dry summers with seasonal, year-to-year, and decade-to-decade variability. For the first time, however, several of the improved climate models shift toward drier conditions by the mid-to-late twenty-first century in central, and most notably, Southern California. By the late century, all projections show drying, and half of them suggest 30-year average precipitation will decline by more than 10% below the historical average (CCCC 2012).

A summary of current and future climate change impacts to resource areas in California, as discussed in the *Safeguarding California: Reducing Climate Risk* (CNRA 2014), is provided below.

**Agriculture.** Some of the specific challenges faced by the agricultural sector and farmers include more drastic and unpredictable precipitation and weather patterns; extreme weather events that range from severe flooding to extreme drought, to destructive storm events; significant shifts in water availability and water quality; changes in pollinator lifecycles; temperature fluctuations, including extreme heat stress and decreased chill hours; increased risks from invasive species and weeds, agricultural pests and plant diseases; and disruptions to the transportation and energy infrastructure supporting agricultural production.

**Biodiversity and Habitat.** Specific climate change challenges to biodiversity and habitat include species migration in response to climatic changes, range shift and novel combinations of species; pathogens, parasites and disease; invasive species; extinction risks; changes in the timing of seasonal life-cycle events; food web disruptions; threshold effects (i.e., a change in the ecosystem that results in a "tipping point" beyond which irreversible damage or loss has occurs).

**Energy.** Specific climate change challenges for the energy sector include temperature, fluctuating precipitation patterns, increasing extreme weather events, sea-level rise, decreased capacity of transmission lines, decreased efficiency of thermal power plants, and increases in electricity demand.

**Forestry.** The most significant climate change related risk to forests is accelerated risk of wildfire, more frequent and severe droughts, and disease. Droughts have resulted in more large-scale mortalities and combined with increasing temperatures have led to an overall increase in wildfire risks. Increased wildfire intensity subsequently increases public safety risks, property damage, fire suppression and emergency response costs, watershed and water quality impacts, and vegetation conversions.

**Ocean and Coastal Ecosystems and Resources.** Sea-level rise, changing ocean conditions and other climate change stressors are likely to exacerbate long-standing challenges related to ocean and coastal ecosystems in addition to threatening people and infrastructure located along the California coastline and in coastal communities. Sea-level rise, in addition to more frequent and severe coastal storms and erosion, is threatening vital infrastructure such as roads, bridges, power plants, ports, airports, gasoline pipes, and emergency facilities, as well as negatively impacting coastal recreational assets such as beaches and tidal wetlands.

**Public Health.** Climate change can impact public health through various environmental changes and is the largest threat to human health in the twenty-first Century. Changes in precipitation patterns affect public health primarily through potential for altered water supplies, and extreme events such as heat, floods, droughts, and wildfires. Increased frequency, intensity and duration of extreme heat and

heat waves are likely to increase the risk of mortality due to heat related illness as well as exacerbate existing chronic health conditions. Other extreme weather events are likely to negatively impact air quality and increase or intensify respiratory illness such as asthma and allergies.

**Transportation.** While the transportation industry is a source of GHG emissions it is also vulnerable to climate change risks. Increasing temperatures and extended periods of extreme heat threaten the integrity of the roadways and rail lines. High temperatures cause the road surfaces to expand which leads to increased pressure and pavement buckling. High temperatures can also cause rail breakages, which could lead to train derailment. Other forms of extreme weather events, such as extreme storm events, can negatively impact infrastructure, which can impair movement of peoples and goods, or potentially block evacuation routes and emergency access roads. Increased wildfires, flooding, erosion risks, landslides, mudslides and rockslides can all profoundly impact the transportation system and pose a serious risk to public safety.

**Water.** Climate change could seriously impact the timing, form, amount of precipitation, runoff patterns, and frequency and severity of precipitation events. Higher temperatures reduce the amount of snowpack and lead to earlier snowmelt, which can impact water supply availability, natural ecosystems and winter recreation. Water supply availability during the intense dry summer months is heavily dependent on the snowpack accumulated during the winter time. Increased risk of flooding has a variety of public health concerns including water quality, public safety, property damage, displacement and post-disaster mental health problems. Prolonged and intensified droughts can also negatively groundwater reserves and result in increased overdraft and subsidence. The higher risk of wildfires can lead to increased erosion, which can negatively impact watersheds and result in poor water quality.

In March 2016, the CNRA released *Safeguarding California: Implementation Action Plans*, a document that shows how California is acting to convert the recommendations contained in the 2014 Safeguarding California plan into action (CNRA 2016). Additionally, in May 2017, CNRA released the draft Safeguarding California Plan: 2017 Update, which is a survey of current programmatic responses for climate change and contains recommendations for further actions (CNRA 2017).

The CNRA released *Safeguarding California Plan: 2018 Update* in January 2018, which provides a roadmap for state agencies to protect communities, infrastructure, services, and the natural environment from climate change impacts. The 2018 Safeguarding California Plan includes 69 recommendations across 11 sectors and more than 1,000 ongoing actions and next steps developed by scientific and policy experts across 38 state agencies (CNRA 2018). As with previous state adaptation plans, the 2018 Update addresses the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea-level rise, more intense and frequent drought, more

severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming.

## 3.4 SIGNIFICANCE CRITERIA AND METHODOLOGY

### 3.4.1 THRESHOLDS OF SIGNIFICANCE

The City's *California Environmental Quality Act* (*CEQA) Significance Determination Thresholds* (City of San Diego 2016) and Appendix G of the CEQA Guidelines contain significance guidelines related to GHG emissions. The following questions are from the City (2016), and provide guidance to determine potential significance for GHG emission impacts. The MWMP may have a significant GHG emission impact if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
2. Conflict with the City's Climate Action Plan or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The City's latest update to the CEQA Significance Determination Thresholds document in July 2016 added a GHG emissions threshold section. Pursuant to CEQA Guidelines Sections 15183.5(b), 15064(h)(3), and 15130(d), the City may determine that a project's incremental contribution to a cumulative GHG effect is not cumulatively considerable if the project complies with the requirements of a previously adopted GHG emission reduction plan. CEQA Guidelines Section 15183.5(b)(1)(A–F) specifically provides that a GHG emissions reduction plan should:

A. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
B. Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
C. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
D. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
E. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; and
F. Be adopted in a public process following environmental review.

An environmental document that relies on a GHG emissions reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project (CEQA Guidelines Section 15183.5(b)(2)).

The method for determining significance depends on whether the action requires plan- or policy-level or project-level environmental analysis. For plan- and policy-level environmental documents, the analysis should follow the Planning Department Climate Action Plan Consistency for Plan- and Policy-Level Documents Memorandum, which provides guidance on significance determination as it relates to all five strategies of the CAP. For project-level environmental documents, significance is determined through the CAP Consistency Checklist.

To evaluate the MWMP's potential to result in a significant GHG emissions impact, both strategies to evaluate the MWMP's potential to conflict with the City's CAP are applied: consistency with the CAP's five strategies and consistency with the CAP Consistency Checklist.

**CAP Five Strategies**

The CAP includes five GHG reduction strategies: (1) energy and water efficient buildings; (2) clean and renewable energy; (3) bicycling, walking, transit and land use; (4) zero waste; and (5) climate resiliency. Plan-level documents, which do not involve changes in land use designation or require a certificate of occupancy, are analyzed for consistency with the five strategies.

**CAP Consistency Checklist**

Under the City's CEQA Thresholds, the method for determining significance for project-level environmental documents is through the CAP Consistency Checklist (City of San Diego 2015b). The CAP Consistency Checklist, adopted July 12, 2016, is used by the City to ensure project-by-project consistency with the underlying assumptions in the CAP and that the City would achieve its emissions reduction targets identified in the CAP. The CAP Consistency Checklist includes a three-step process to determine project consistency (City of San Diego 2015b). Step 1 consists of an evaluation to determine the project's consistency with existing General Plan, Community Plan, and zoning designations for the site. If the project is able to answer "yes" to Step 1 and demonstrate the project would be consistent with existing General Plan, Community Plan, and zoning designations for the site, then the project may proceed to Step 2. If a project is not consistent with Step 1 or Step 3, GHG impacts as identified under CEQA would be significant and unavoidable.

Step 2 includes the list of measures each project is required to implement. All projects must implement all feasible Step 2 measures.

### 3.4.2 APPROACH AND METHODOLOGY

CalEEMod Version 2016.3.2 was used to estimate potential MWMP-generated GHG emissions during construction. Implementation of MWMP maintenance activities would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 2.4.2.1 are also applicable for the estimation of MWMP-related GHG emissions. As such, see Section 2.4.2.1 for a discussion of construction emissions calculation methodology and assumptions.

## 3.5 IMPACT ANALYSIS

**Issue 1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Issue 2: Would the project conflict with the City's Climate Action Plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Construction of the maintenance activities under the MWMP would result in GHG emissions, which are primarily associated with use of off-road equipment, on-road hauling and vendor trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.3.2, Approach and Methodology. On-site sources of GHG emissions include off-road equipment and off-site sources, including hauling and vendor trucks and worker vehicles.

Table 21 presents the estimated annual construction emissions generated for each of the 10 representative projects.

**Table 21**
**Estimated Annual Construction Emissions By Representative Project**

| Representative Project ID | Maintenance Activity Category | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| | | *Metric Tons per Year* | | | |
| 1 | Concrete with Vegetation Removal (20% or more vegetated) | 9.26 | 0.00 | 0.00 | 9.30 |
| 2 | Concrete with Vegetation Removal (less than 20% vegetated) | 23.87 | 0.00 | 0.00 | 23.97 |
| 3 | Minor concrete repair | 9.78 | 0.00 | 0.00 | 9.82 |

**Table 21**
**Estimated Annual Construction Emissions By Representative Project**

| Representative Project ID | Maintenance Activity Category | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| | | *Metric Tons per Year* | | | |
| 4 | Major concrete repair | 90.35 | 0.01 | 0.00 | 90.65 |
| 5 | Earthen Facility Typical – 1 | 34.94 | 0.00 | 0.00 | 35.04 |
| 6 | Earthen Facility Typical – 2 | 111.02 | 0.02 | 0.00 | 111.47 |
| 7 | Earthen Facility Typical – 3 | 73.56 | 0.01 | 0.00 | 73.86 |
| 8 | Earthen Facility Typical – 4 | 19.02 | 0.00 | 0.00 | 19.12 |
| 9 | Earthen Facility Typical Outlet/Inlet Structure | 3.01 | 0.00 | 0.00 | 3.02 |
| 10 | Tijuana River Smuggler's Gulch | 207.05 | 0.03 | 0.00 | 207.79 |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent.
See Appendix A for complete results.
Year 2018 was conservatively assumed to represent the year of construction.

It is anticipated that the maximum number of maintenance activities that would be implemented in a calendar year is 43. Table 22 presents the maximum activity that would occur in a calendar year.

**Table 22**
**Estimated Annual Construction Greenhouse Gas Emissions**

| Project | Occurrence | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| | | *Metric Tons per Year* | | | |
| Concrete with Vegetation Removal (20% or more vegetated) | 3 | 27.78 | 0.00 | 0.00 | 27.90 |
| Concrete with Vegetation Removal (less than 20% vegetated) | 6 | 143.21 | 0.03 | 0.00 | 143.84 |
| Minor Concrete Repair | 12 | 117.42 | 0.02 | 0.00 | 117.85 |

**Table 22**
**Estimated Annual Construction Greenhouse Gas Emissions**

| Project | Occurrence | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| | | *Metric Tons per Year* | | | |
| Major Concrete Repair | 2 | 180.70 | 0.02 | 0.00 | 181.30 |
| Earthen Facility Typical – 1 | 2 | 69.88 | 0.01 | 0.00 | 70.09 |
| Earthen Facility Typical – 2 | 1 | 111.02 | 0.02 | 0.00 | 111.47 |
| Earthen Facility Typical – 3 | 3 | 220.67 | 0.04 | 0.00 | 221.58 |
| Earthen Facility Typical – 4 | 3 | 57.07 | 0.01 | 0.00 | 57.37 |
| Earthen Facility Typical Outlet/Inlet Structure | 10 | 30.07 | 0.01 | 0.00 | 30.20 |
| Tijuana River Smuggler's Gulch | 1 | 207.05 | 0.03 | 0.00 | 207.79 |
| **Total** | | **1,164.88** | **0.18** | **0.00** | **1,169.38** |

**Notes:** $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $CO_2e$ = carbon dioxide equivalent.
See Appendix A for complete results.

As shown in Table 22, the estimated maximum annual GHG emissions during construction activities associated with the MWMP would be approximately 1,169 MT $CO_2e$.

Table 23 presents the total GHG emissions over the entire maintenance period that would occur over MWMP implementation.

**Table 23**
**Estimated Total Construction Greenhouse Gas Emissions**

| Project | Segments in MWMP | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| | | *Metric Tons per Year* | | | |
| Concrete with Vegetation Removal (20% or more vegetated) | 11 | 101.87 | 0.02 | 0.00 | 102.30 |
| Concrete with Vegetation Removal (less than 20% vegetated) | 43 | 1,026.34 | 0.18 | 0.00 | 1,030.86 |
| Minor Concrete Repair | 50 | 489.24 | 0.07 | 0.00 | 491.03 |
| Major Concrete Repair | 5 | 451.24 | 0.07 | 0.00 | 453.25 |
| Earthen Facility Typical – 1 | 8 | 279.52 | 0.03 | 0.00 | 280.36 |
| Earthen Facility Typical – 2 | 8 | 888.16 | 0.14 | 0.00 | 891.78 |
| Earthen Facility Typical – 3 | 16 | 1,176.90 | 0.19 | 0.00 | 1,181.74 |
| Earthen Facility Typical – 4 | 15 | 285.35 | 0.06 | 0.00 | 286.84 |

**Table 23**
**Estimated Total Construction Greenhouse Gas Emissions**

| Project | Segments in MWMP | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| | | *Metric Tons per Year* | | | |
| Earthen Facility Typical Outlet/Inlet Structure | 10 | 30.07 | 0.01 | 0.00 | 30.20 |
| Tijuana River Smuggler's Gulch | 2 | 414.10 | 0.06 | 0.00 | 415.57 |
| **Total** | | **5,143.33** | **0.81** | **0.00** | **5,163.92** |

**Notes**: CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; CO2e = carbon dioxide equivalent.
These estimates only reflect project-level activities.
See Appendix A for complete results.

As shown in Table 23, the estimated total GHG emissions during construction would be approximately 5,164 MT $CO_2e$. The MWMP's consistency with the City CAP is assessed below.

Under CAP Consistency Checklist Step 1, the MWMP would be consistent with the applicable land use designations. Implementation of MWMP maintenance activities would be completed by existing City staff and would not encourage employment or population growth. Step 2 of the CAP Consistency Checklist is not applicable to development projects that would not require a certificate of occupancy from a building official. The CAP Consistency Checklist is included as Appendix B.

Public projects are required to implement best management practices for construction activities, as set forth in the Greenbook (for public projects). The City has created the Whitebook, which is a supplement that takes precedence over the specification language contained in the Greenbook and addresses the unique conditions in the City that are not addressed in the Greenbook.

The CAP includes the following five strategies developed to reduce City-wide GHG emissions and to achieve GHG reduction targets for the years 2020 and 2035:

1. Energy- and Water-Efficient Buildings
2. Clean and Renewable Energy
3. Bicycling, Walking, Transit, and Land Use
4. Zero Waste (Gas and Waste Management)
5. Climate Resiliency

Each of the City's CAP strategies includes goals to identify ways to reduce GHG emissions. The MWMP's consistency with the applicable strategies is discussed below.

**Strategy 1: Energy- and Water-Efficient Buildings**

The CAP's first strategy is aimed at energy- and water-efficient buildings. The City's goals under Strategy 1 include reducing residential building and municipal energy consumption, and reducing daily per-capita water consumption. Actions to reduce energy consumption include consideration of a residential Energy Conservation and Disclosure Ordinance and a Municipal Energy Strategy and Implementation Plan. Actions related to water efficiency include implementing new water rates and billing structure, consideration of a Water Conservation and Disclosure Ordinance, and implementation of an Outdoor Landscaping Ordinance requiring weather-based irrigation controllers. Strategy 1 actions are directed at City staff and City Council to adopt ordinances, plans, and supporting City requirements to achieve the City's targets.

The MWMP would not include any new buildings; therefore, the MWMP would not conflict with the applicable CAP goals and actions identified in Strategy 1.

**Strategy 2: Clean and Renewable Energy**

Strategy 2 focuses on clean and renewable energy. Strategy 2 goals of transitioning to 100% renewable energy on the City-wide electrical grid by 2035, increasing municipal zero-emissions vehicles, and converting existing diesel municipal solid waste collection trucks to compressed natural gas or other alternative low-emissions fuels would be implemented by the City and would not apply to implementation of the MWMP.

The MWMP would not include operational energy demand; therefore, the MWMP would not conflict with the City's ability to implement the actions identified in Strategy 2.

**Strategy 3: Bicycling, Walking, Transit, and Land Use**

Strategy 3 outlines goals and actions related to bicycling, walking, transit, and land use. Strategy 3 goals include increasing the use of mass transit, increasing commuter walking and bicycling opportunities, reducing vehicle fuel consumption, and promoting effective land use to reduce vehicle miles traveled.

The MWMP would not include any new employees and would not result in any additional growth that would generate permanent regular vehicular trips or demand for vehicle/bicycle parking or mass transit; therefore, the MWMP would not conflict with the applicable CAP goals and actions identified in Strategy 3.

**Strategy 4: Zero Waste (Gas and Waste Management)**

Strategy 4, which focuses on zero waste, includes the goal of diverting solid waste, capturing landfill $CH_4$ gas emissions, and capturing $CH_4$ gas from wastewater treatment.

The City has targeted 75% waste diversion from landfill disposal, consistent with the requirement so of the Public Resources Code. Currently, TSW has a waste diversion rate of approximately 24% (City of San Diego 2017). This low diversion rate is largely due to street sweeping spoils and the types of material removed from channel beds, which are taken to a landfill. Street sweeping spoils are potentially contaminated, and some of the vegetation may not be suitable for processing at organic processing facilities.

While the MWMP would not itself divert 75% of the excavated material from disposal, the MWMP would not worsen the baseline condition in terms of the disposal rate for this program. The CAP sets forth strategies and implementing actions related to solid waste diversion, which, together with the CAP annual monitoring program, would ensure that the City achieves the reductions called for in the CAP. While the CAP calls for developing new waste diversion strategies and calls on the City to "lead by example" (page 9 of the Zero Waste Plan), it does not specifically call for the achievement of the waste diversion goal through measures related to storm water channel maintenance. The MWMP would also not impede implementation of any of the CAP strategies to achieve the City's GHG emissions reduction targets. In addition, the MWMP includes **EP-SW-1** through **EP-SW-8**, which would ensure that waste is diverted from the landfill to the maximum extent feasible. Thus, the MWMP would not impede implementation with CAP goals and actions identified in Strategy 4.

**Strategy 5: Climate Resiliency**

The fifth and last strategy relates to climate resiliency and includes the goal of increasing tree canopy coverage. The action under this goal includes consideration of a City-wide Urban Tree Planting Program, which would incorporate water conservation measures and prioritization of drought-tolerant and native trees and plantings in areas with recycled water.

As discussed in Section 5.3, Biological Resources, of the MWMP's EIR, potential temporary and permanent impacts to sensitive vegetation communities or trees would be mitigated for. The MWMP does not include additional planting of canopy trees and other vegetation that would support this strategy. The MWMP would not conflict with the City's actions to increase tree canopy coverage through a planting program and supporting measures. Strategy 5 of the CAP is not directly applicable to the MWMP; however, the MWMP would not conflict with the City's actions to implement Strategy 5.

The MWMP is consistent with each of the CAP strategies. With implementation of **EP-SW-1** through **EP-SW-8**, the MWMP would have a **less than significant impact**.

**Mitigation Measures**

Implementation of **EP-SW-1** through **EP-SW-8**, as detailed in Section 5.11, Solid Waste, of the MWMP's EIR, would ensure that waste transferred to a landfill as a result of MWMP project- and program-level activities is diverted to the maximum amount feasible consistent with the CAP. No mitigation measures are required.

**Level of Significance After Mitigation**

Accumulated trash, debris, and sediment must be removed periodically to keep storm water facilities functioning as designed to carry storm water downstream and to manage flood risk. When implemented, EP-SW-1 EP-SW-8, as detailed in Section 5.11, Solid Waste, would ensure that waste is diverted to the maximum extent feasible, consistent with the CAP. Therefore, impacts would be **less than significant**.

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# 5 LIST OF PREPARERS

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# APPENDIX A

## *CalEEMod Output Files*

# Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme San Diego County, Annual

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.88 | 1000sqft | 0.59 | 25,875.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Pump use assumed 20% of constuction time.

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4 interim or better.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12938 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 38813 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblLandUse | LandUseSquareFeet | 25,880.00 | 25,875.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 32.09 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 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 | 5,984,750.00 | 0.00 |

# 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 | | | | | |
| 2018 | 5.5200e-003 | 0.0535 | 0.0484 | 9.0000e-005 | 1.1900e-003 | 2.7800e-003 | 3.9700e-003 | 2.4000e-004 | 2.6600e-003 | 2.8900e-003 | 0.0000 | 7.8330 | 7.8330 | 1.5100e-003 | 0.0000 | 7.8708 |
| **Maximum** | **5.5200e-003** | **0.0535** | **0.0484** | **9.0000e-005** | **1.1900e-003** | **2.7800e-003** | **3.9700e-003** | **2.4000e-004** | **2.6600e-003** | **2.8900e-003** | **0.0000** | **7.8330** | **7.8330** | **1.5100e-003** | **0.0000** | **7.8708** |

### 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 | 1.5900e-003 | 0.0353 | 0.0538 | 9.0000e-005 | 9.0000e-004 | 3.6000e-004 | 1.2600e-003 | 2.0000e-004 | 3.6000e-004 | 5.6000e-004 | 0.0000 | 7.8330 | 7.8330 | 1.5100e-003 | 0.0000 | 7.8708 |
| **Maximum** | **1.5900e-003** | **0.0353** | **0.0538** | **9.0000e-005** | **9.0000e-004** | **3.6000e-004** | **1.2600e-003** | **2.0000e-004** | **3.6000e-004** | **5.6000e-004** | **0.0000** | **7.8330** | **7.8330** | **1.5100e-003** | **0.0000** | **7.8708** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **71.20** | **33.98** | **-11.13** | **0.00** | **24.37** | **87.05** | **68.26** | **16.67** | **86.47** | **80.62** | **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** | **3-1-2018** | **5-31-2018** | 0.0529 | 0.0337 |
| | | **Highest** | 0.0529 | 0.0337 |

## 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 | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-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 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

## 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 | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-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 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/2/2018 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/14/2018 | 5 | 10 | |

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County,

Annual **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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 8.00 | 4.00 | 10.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County,

Annual Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Pump Use - 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 | | | | | 5.3000e-004 | 0.0000 | 5.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.3900e-003 | 0.0188 | 0.0171 | 3.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 2.5434 | 2.5434 | 1.9000e-004 | 0.0000 | 2.5482 |
| **Total** | **2.3900e-003** | **0.0188** | **0.0171** | **3.0000e-005** | **5.3000e-004** | **1.2400e-003** | **1.7700e-003** | **6.0000e-005** | **1.2400e-003** | **1.3000e-003** | **0.0000** | **2.5434** | **2.5434** | **1.9000e-004** | **0.0000** | **2.5482** |

## 3.2 Pump Use - 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 | 6.0000e-005 | 5.0000e-005 | 4.9000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.1158 | 0.1158 | 0.0000 | 0.0000 | 0.1159 |
| **Total** | **6.0000e-005** | **5.0000e-005** | **4.9000e-004** | **0.0000** | **1.2000e-004** | **0.0000** | **1.2000e-004** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **0.1158** | **0.1158** | **0.0000** | **0.0000** | **0.1159** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.4000e-004 | 0.0000 | 2.4000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.4000e-004 | 0.0106 | 0.0183 | 3.0000e-005 | | 4.0000e-005 | 4.0000e-005 | | 4.0000e-005 | 4.0000e-005 | 0.0000 | 2.5434 | 2.5434 | 1.9000e-004 | 0.0000 | 2.5482 |
| **Total** | **5.4000e-004** | **0.0106** | **0.0183** | **3.0000e-005** | **2.4000e-004** | **4.0000e-005** | **2.8000e-004** | **3.0000e-005** | **4.0000e-005** | **7.0000e-005** | **0.0000** | **2.5434** | **2.5434** | **1.9000e-004** | **0.0000** | **2.5482** |

## 3.2 Pump Use - 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 | 6.0000e-005 | 5.0000e-005 | 4.9000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.1158 | 0.1158 | 0.0000 | 0.0000 | 0.1159 |
| **Total** | **6.0000e-005** | **5.0000e-005** | **4.9000e-004** | **0.0000** | **1.2000e-004** | **0.0000** | **1.2000e-004** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **0.1158** | **0.1158** | **0.0000** | **0.0000** | **0.1159** |

## 3.3 Maintenance Activities - 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 | 2.7400e-003 | 0.0302 | 0.0285 | 4.0000e-005 | | 1.5000e-003 | 1.5000e-003 | | 1.3800e-003 | 1.3800e-003 | 0.0000 | 3.9357 | 3.9357 | 1.2300e-003 | 0.0000 | 3.9664 |
| **Total** | **2.7400e-003** | **0.0302** | **0.0285** | **4.0000e-005** | **0.0000** | **1.5000e-003** | **1.5000e-003** | **0.0000** | **1.3800e-003** | **1.3800e-003** | **0.0000** | **3.9357** | **3.9357** | **1.2300e-003** | **0.0000** | **3.9664** |

## 3.3 Maintenance Activities - 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 | 5.0000e-005 | 1.6200e-003 | 3.4000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 9.0000e-005 | 2.0000e-005 | 1.0000e-005 | 3.0000e-005 | 0.0000 | 0.3940 | 0.3940 | 4.0000e-005 | 0.0000 | 0.3949 |
| Vendor | 1.0000e-004 | 2.6700e-003 | 7.3000e-004 | 1.0000e-005 | 1.3000e-004 | 2.0000e-005 | 1.5000e-004 | 4.0000e-005 | 2.0000e-005 | 6.0000e-005 | 0.0000 | 0.5353 | 0.5353 | 4.0000e-005 | 0.0000 | 0.5364 |
| Worker | 1.7000e-004 | 1.4000e-004 | 1.3000e-003 | 0.0000 | 3.2000e-004 | 0.0000 | 3.2000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.3087 | 0.3087 | 1.0000e-005 | 0.0000 | 0.3090 |
| **Total** | **3.2000e-004** | **4.4300e-003** | **2.3700e-003** | **1.0000e-005** | **5.4000e-004** | **3.0000e-005** | **5.6000e-004** | **1.5000e-004** | **3.0000e-005** | **1.8000e-004** | **0.0000** | **1.2381** | **1.2381** | **9.0000e-005** | **0.0000** | **1.2403** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 6.6000e-004 | 0.0203 | 0.0327 | 4.0000e-005 | | 2.9000e-004 | 2.9000e-004 | | 2.9000e-004 | 2.9000e-004 | 0.0000 | 3.9357 | 3.9357 | 1.2300e-003 | 0.0000 | 3.9664 |
| **Total** | **6.6000e-004** | **0.0203** | **0.0327** | **4.0000e-005** | **0.0000** | **2.9000e-004** | **2.9000e-004** | **0.0000** | **2.9000e-004** | **2.9000e-004** | **0.0000** | **3.9357** | **3.9357** | **1.2300e-003** | **0.0000** | **3.9664** |

### 3.3 Maintenance Activities - 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 | 5.0000e-005 | 1.6200e-003 | 3.4000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 9.0000e-005 | 2.0000e-005 | 1.0000e-005 | 3.0000e-005 | 0.0000 | 0.3940 | 0.3940 | 4.0000e-005 | 0.0000 | 0.3949 |
| Vendor | 1.0000e-004 | 2.6700e-003 | 7.3000e-004 | 1.0000e-005 | 1.3000e-004 | 2.0000e-005 | 1.5000e-004 | 4.0000e-005 | 2.0000e-005 | 6.0000e-005 | 0.0000 | 0.5353 | 0.5353 | 4.0000e-005 | 0.0000 | 0.5364 |
| Worker | 1.7000e-004 | 1.4000e-004 | 1.3000e-003 | 0.0000 | 3.2000e-004 | 0.0000 | 3.2000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.3087 | 0.3087 | 1.0000e-005 | 0.0000 | 0.3090 |
| **Total** | **3.2000e-004** | **4.4300e-003** | **2.3700e-003** | **1.0000e-005** | **5.4000e-004** | **3.0000e-005** | **5.6000e-004** | **1.5000e-004** | **3.0000e-005** | **1.8000e-004** | **0.0000** | **1.2381** | **1.2381** | **9.0000e-005** | **0.0000** | **1.2403** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-004 |
| Unmitigated | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-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 |
| Consumer Products | 0.1011 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 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 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-004 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

**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 | 0.1011 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 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 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-004 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

## 7.0 Water Detail

# 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme San Diego County, Annual

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.88 | 1000sqft | 0.59 | 25,875.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Pump use assumed 20% of constuction time.

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12938 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 38813 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |

| | | | |
|---|---|---|---|
| tblLandUse | LandUseSquareFeet | 25,880.00 | 25,875.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 32.09 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,984,750.00 | 0.00 |

## 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 | | | | | |
| 2018 | 6.3200e-003 | 0.0542 | 0.0545 | 1.0000e-004 | 2.6700e-003 | 2.7900e-003 | 5.4700e-003 | 6.3000e-004 | 2.6700e-003 | 3.3000e-003 | 0.0000 | 9.2669 | 9.2669 | 1.5600e-003 | 0.0000 | 9.3060 |
| **Maximum** | **6.3200e-003** | **0.0542** | **0.0545** | **1.0000e-004** | **2.6700e-003** | **2.7900e-003** | **5.4700e-003** | **6.3000e-004** | **2.6700e-003** | **3.3000e-003** | **0.0000** | **9.2669** | **9.2669** | **1.5600e-003** | **0.0000** | **9.3060** |

### 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 | 6.3200e-003 | 0.0542 | 0.0545 | 1.0000e-004 | 2.3800e-003 | 2.7900e-003 | 5.1700e-003 | 6.0000e-004 | 2.6700e-003 | 3.2700e-003 | 0.0000 | 9.2669 | 9.2669 | 1.5600e-003 | 0.0000 | 9.3060 |
| **Maximum** | **6.3200e-003** | **0.0542** | **0.0545** | **1.0000e-004** | **2.3800e-003** | **2.7900e-003** | **5.1700e-003** | **6.0000e-004** | **2.6700e-003** | **3.2700e-003** | **0.0000** | **9.2669** | **9.2669** | **1.5600e-003** | **0.0000** | **9.3060** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **10.86** | **0.00** | **5.48** | **4.76** | **0.00** | **0.91** | **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 | 3-1-2018 | 5-31-2018 | 0.0545 | 0.0545 |
| | | Highest | 0.0545 | 0.0545 |

## 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 | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-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 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

## 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 | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-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 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/2/2018 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/14/2018 | 5 | 10 | |

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Annual

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 48.00 | 4.00 | 10.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Pump Use - 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 | | | | | 5.3000e-004 | 0.0000 | 5.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.3900e-003 | 0.0188 | 0.0171 | 3.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 2.5434 | 2.5434 | 1.9000e-004 | 0.0000 | 2.5482 |
| **Total** | **2.3900e-003** | **0.0188** | **0.0171** | **3.0000e-005** | **5.3000e-004** | **1.2400e-003** | **1.7700e-003** | **6.0000e-005** | **1.2400e-003** | **1.3000e-003** | **0.0000** | **2.5434** | **2.5434** | **1.9000e-004** | **0.0000** | **2.5482** |

### Unmitigated Construction Off-Site

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

## 3.2 Pump Use - 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.4000e-004 | 0.0000 | 2.4000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.3900e-003 | 0.0188 | 0.0171 | 3.0000e-005 | | 1.2400e-003 | 1.2400e-003 | | 1.2400e-003 | 1.2400e-003 | 0.0000 | 2.5434 | 2.5434 | 1.9000e-004 | 0.0000 | 2.5482 |
| **Total** | **2.3900e-003** | **0.0188** | **0.0171** | **3.0000e-005** | **2.4000e-004** | **1.2400e-003** | **1.4800e-003** | **3.0000e-005** | **1.2400e-003** | **1.2700e-003** | **0.0000** | **2.5434** | **2.5434** | **1.9000e-004** | **0.0000** | **2.5482** |

### Mitigated Construction Off-Site

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

## 3.3 Maintenance Activities - 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 | 2.7500e-003 | 0.0303 | 0.0285 | 4.0000e-005 | | 1.5100e-003 | 1.5100e-003 | | 1.3900e-003 | 1.3900e-003 | 0.0000 | 3.9419 | 3.9419 | 1.2300e-003 | 0.0000 | 3.9725 |
| **Total** | **2.7500e-003** | **0.0303** | **0.0285** | **4.0000e-005** | **0.0000** | **1.5100e-003** | **1.5100e-003** | **0.0000** | **1.3900e-003** | **1.3900e-003** | **0.0000** | **3.9419** | **3.9419** | **1.2300e-003** | **0.0000** | **3.9725** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 5.0000e-005 | 1.6200e-003 | 3.4000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 9.0000e-005 | 2.0000e-005 | 1.0000e-005 | 3.0000e-005 | 0.0000 | 0.3940 | 0.3940 | 4.0000e-005 | 0.0000 | 0.3949 |
| Vendor | 1.0000e-004 | 2.6700e-003 | 7.3000e-004 | 1.0000e-005 | 1.3000e-004 | 2.0000e-005 | 1.5000e-004 | 4.0000e-005 | 2.0000e-005 | 6.0000e-005 | 0.0000 | 0.5353 | 0.5353 | 4.0000e-005 | 0.0000 | 0.5364 |
| Worker | 1.0300e-003 | 8.1000e-004 | 7.7900e-003 | 2.0000e-005 | 1.9200e-003 | 1.0000e-005 | 1.9400e-003 | 5.1000e-004 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 1.8523 | 1.8523 | 6.0000e-005 | 0.0000 | 1.8539 |
| **Total** | **1.1800e-003** | **5.1000e-003** | **8.8600e-003** | **3.0000e-005** | **2.1400e-003** | **4.0000e-005** | **2.1800e-003** | **5.7000e-004** | **4.0000e-005** | **6.1000e-004** | **0.0000** | **2.7816** | **2.7816** | **1.4000e-004** | **0.0000** | **2.7852** |

## 3.3 Maintenance Activities - 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 | 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 | 2.7500e-003 | 0.0303 | 0.0285 | 4.0000e-005 | | 1.5100e-003 | 1.5100e-003 | | 1.3900e-003 | 1.3900e-003 | 0.0000 | 3.9419 | 3.9419 | 1.2300e-003 | 0.0000 | 3.9725 |
| **Total** | **2.7500e-003** | **0.0303** | **0.0285** | **4.0000e-005** | **0.0000** | **1.5100e-003** | **1.5100e-003** | **0.0000** | **1.3900e-003** | **1.3900e-003** | **0.0000** | **3.9419** | **3.9419** | **1.2300e-003** | **0.0000** | **3.9725** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 5.0000e-005 | 1.6200e-003 | 3.4000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 9.0000e-005 | 2.0000e-005 | 1.0000e-005 | 3.0000e-005 | 0.0000 | 0.3940 | 0.3940 | 4.0000e-005 | 0.0000 | 0.3949 |
| Vendor | 1.0000e-004 | 2.6700e-003 | 7.3000e-004 | 1.0000e-005 | 1.3000e-004 | 2.0000e-005 | 1.5000e-004 | 4.0000e-005 | 2.0000e-005 | 6.0000e-005 | 0.0000 | 0.5353 | 0.5353 | 4.0000e-005 | 0.0000 | 0.5364 |
| Worker | 1.0300e-003 | 8.1000e-004 | 7.7900e-003 | 2.0000e-005 | 1.9200e-003 | 1.0000e-005 | 1.9400e-003 | 5.1000e-004 | 1.0000e-005 | 5.2000e-004 | 0.0000 | 1.8523 | 1.8523 | 6.0000e-005 | 0.0000 | 1.8539 |
| **Total** | **1.1800e-003** | **5.1000e-003** | **8.8600e-003** | **3.0000e-005** | **2.1400e-003** | **4.0000e-005** | **2.1800e-003** | **5.7000e-004** | **4.0000e-005** | **6.1000e-004** | **0.0000** | **2.7816** | **2.7816** | **1.4000e-004** | **0.0000** | **2.7852** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-004 |
| Unmitigated | 0.1011 | 0.0000 | 2.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-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 |
| Consumer Products | 0.1011 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 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 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-004 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

### 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 | 0.1011 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 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 | 0.0000 | 4.6000e-004 | 4.6000e-004 | 0.0000 | 0.0000 | 4.9000e-004 |
| **Total** | **0.1011** | **0.0000** | **2.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.6000e-004** | **4.6000e-004** | **0.0000** | **0.0000** | **4.9000e-004** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Concrete With 20% or more Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme San Diego County, Summer

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.88 | 1000sqft | 0.59 | 25,875.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Pump use assumed 20% of constuction time.

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4 interim or better.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12938 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 38813 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblLandUse | LandUseSquareFeet | 25,880.00 | 25,875.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 32.09 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 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 | 5,984,750.00 | 0.00 |

# 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 | | | | | |
| 2018 | 3.0691 | 25.7428 | 23.8078 | 0.0422 | 0.7637 | 1.5506 | 2.3143 | 0.1200 | 1.5262 | 1.6462 | 0.0000 | 4,084.4462 | 4,084.4462 | 0.5065 | 0.0000 | 4,097.1083 |
| **Maximum** | **3.0691** | **25.7428** | **23.8078** | **0.0422** | **0.7637** | **1.5506** | **2.3143** | **0.1200** | **1.5262** | **1.6462** | **0.0000** | **4,084.4462** | **4,084.4462** | **0.5065** | **0.0000** | **4,097.1083** |

### 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 | 0.8019 | 15.5253 | 25.7891 | 0.0422 | 0.4721 | 0.1045 | 0.5766 | 0.0885 | 0.1041 | 0.1926 | 0.0000 | 4,084.4462 | 4,084.4462 | 0.5065 | 0.0000 | 4,097.1083 |
| **Maximum** | **0.8019** | **15.5253** | **25.7891** | **0.0422** | **0.4721** | **0.1045** | **0.5766** | **0.0885** | **0.1041** | **0.1926** | **0.0000** | **4,084.4462** | **4,084.4462** | **0.5065** | **0.0000** | **4,097.1083** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **73.87** | **39.69** | **-8.32** | **0.00** | **38.19** | **93.26** | **75.09** | **26.25** | **93.18** | **88.30** | **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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

### 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/2/2018 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/14/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 8.00 | 4.00 | 10.00 | 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 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0639 | 0.0460 | 0.5135 | 1.3500e-003 | 0.1232 | 8.9000e-004 | 0.1241 | 0.0327 | 8.2000e-004 | 0.0335 | | 134.5837 | 134.5837 | 4.6100e-003 | | 134.6988 |
| **Total** | **0.0639** | **0.0460** | **0.5135** | **1.3500e-003** | **0.1232** | **8.9000e-004** | **0.1241** | **0.0327** | **8.2000e-004** | **0.0335** | | **134.5837** | **134.5837** | **4.6100e-003** | | **134.6988** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0639 | 0.0460 | 0.5135 | 1.3500e-003 | 0.1232 | 8.9000e-004 | 0.1241 | 0.0327 | 8.2000e-004 | 0.0335 | | 134.5837 | 134.5837 | 4.6100e-003 | | 134.6988 |
| **Total** | **0.0639** | **0.0460** | **0.5135** | **1.3500e-003** | **0.1232** | **8.9000e-004** | **0.1241** | **0.0327** | **8.2000e-004** | **0.0335** | | **134.5837** | **134.5837** | **4.6100e-003** | | **134.6988** |

## 3.3 Maintenance Activities - 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 | 0.5487 | 6.0408 | 5.6914 | 8.6200e-003 | | 0.3006 | 0.3006 | | 0.2766 | 0.2766 | | 867.6776 | 867.6776 | 0.2701 | | 874.4306 |
| **Total** | **0.5487** | **6.0408** | **5.6914** | **8.6200e-003** | **0.0000** | **0.3006** | **0.3006** | **0.0000** | **0.2766** | **0.2766** | | **867.6776** | **867.6776** | **0.2701** | | **874.4306** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.1500e-003 | 0.3181 | 0.0656 | 8.0000e-004 | 0.0175 | 1.2500e-003 | 0.0187 | 4.7900e-003 | 1.2000e-003 | 5.9900e-003 | | 87.4755 | 87.4755 | 7.7100e-003 | | 87.6682 |
| Vendor | 0.0206 | 0.5270 | 0.1396 | 1.1100e-003 | 0.0271 | 4.1200e-003 | 0.0312 | 7.8000e-003 | 3.9400e-003 | 0.0117 | | 119.2760 | 119.2760 | 9.4500e-003 | | 119.5123 |
| Worker | 0.0341 | 0.0245 | 0.2739 | 7.2000e-004 | 0.0657 | 4.7000e-004 | 0.0662 | 0.0174 | 4.4000e-004 | 0.0179 | | 71.7780 | 71.7780 | 2.4600e-003 | | 71.8394 |
| **Total** | **0.0638** | **0.8696** | **0.4790** | **2.6300e-003** | **0.1103** | **5.8400e-003** | **0.1161** | **0.0300** | **5.5800e-003** | **0.0356** | | **278.5294** | **278.5294** | **0.0196** | | **279.0199** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1316 | 4.0522 | 6.5429 | 8.6200e-003 | | 0.0583 | 0.0583 | | 0.0583 | 0.0583 | 0.0000 | 867.6776 | 867.6776 | 0.2701 | | 874.4306 |
| **Total** | **0.1316** | **4.0522** | **6.5429** | **8.6200e-003** | **0.0000** | **0.0583** | **0.0583** | **0.0000** | **0.0583** | **0.0583** | **0.0000** | **867.6776** | **867.6776** | **0.2701** | | **874.4306** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.1500e-003 | 0.3181 | 0.0656 | 8.0000e-004 | 0.0175 | 1.2500e-003 | 0.0187 | 4.7900e-003 | 1.2000e-003 | 5.9900e-003 | | 87.4755 | 87.4755 | 7.7100e-003 | | 87.6682 |
| Vendor | 0.0206 | 0.5270 | 0.1396 | 1.1100e-003 | 0.0271 | 4.1200e-003 | 0.0312 | 7.8000e-003 | 3.9400e-003 | 0.0117 | | 119.2760 | 119.2760 | 9.4500e-003 | | 119.5123 |
| Worker | 0.0341 | 0.0245 | 0.2739 | 7.2000e-004 | 0.0657 | 4.7000e-004 | 0.0662 | 0.0174 | 4.4000e-004 | 0.0179 | | 71.7780 | 71.7780 | 2.4600e-003 | | 71.8394 |
| **Total** | **0.0638** | **0.8696** | **0.4790** | **2.6300e-003** | **0.1103** | **5.8400e-003** | **0.1161** | **0.0300** | **5.5800e-003** | **0.0356** | | **278.5294** | **278.5294** | **0.0196** | | **279.0199** |

## 4.0 Operational Detail - Mobile

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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| Unmitigated | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| Consumer Products | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

### 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 | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

## 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**

| 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

# Concrete With 20% or more Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme San Diego County, Summer

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.88 | 1000sqft | 0.59 | 25,875.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Pump use assumed 20% of constuction time.

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12938 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 38813 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |

| | | | |
|---|---|---|---|
| tblLandUse | LandUseSquareFeet | 25,880.00 | 25,875.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 32.09 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,984,750.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.1771 | 25.8362 | 24.6735 | 0.0445 | 0.9691 | 1.5530 | 2.5221 | 0.1744 | 1.5284 | 1.7028 | 0.0000 | 4,310.1064 | 4,310.1064 | 0.5146 | 0.0000 | 4,322.9709 |
| **Maximum** | **3.1771** | **25.8362** | **24.6735** | **0.0445** | **0.9691** | **1.5530** | **2.5221** | **0.1744** | **1.5284** | **1.7028** | **0.0000** | **4,310.1064** | **4,310.1064** | **0.5146** | **0.0000** | **4,322.9709** |

### 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 | 3.1771 | 25.8362 | 24.6735 | 0.0445 | 0.6775 | 1.5530 | 2.2304 | 0.1429 | 1.5284 | 1.6713 | 0.0000 | 4,310.1064 | 4,310.1064 | 0.5146 | 0.0000 | 4,322.9709 |
| **Maximum** | **3.1771** | **25.8362** | **24.6735** | **0.0445** | **0.6775** | **1.5530** | **2.2304** | **0.1429** | **1.5284** | **1.6713** | **0.0000** | **4,310.1064** | **4,310.1064** | **0.5146** | **0.0000** | **4,322.9709** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **30.09** | **0.00** | **11.56** | **18.05** | **0.00** | **1.85** | **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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

### 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/2/2018 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/14/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 48.00 | 4.00 | 10.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | 0.5503 | 6.0575 | 5.7013 | 8.6400e-003 | | 0.3015 | 0.3015 | | 0.2774 | 0.2774 | | 869.0317 | 869.0317 | 0.2705 | | 875.7952 |
| **Total** | **0.5503** | **6.0575** | **5.7013** | **8.6400e-003** | **0.0000** | **0.3015** | **0.3015** | **0.0000** | **0.2774** | **0.2774** | | **869.0317** | **869.0317** | **0.2705** | | **875.7952** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.1500e-003 | 0.3181 | 0.0656 | 8.0000e-004 | 0.0175 | 1.2500e-003 | 0.0187 | 4.7900e-003 | 1.2000e-003 | 5.9900e-003 | | 87.4755 | 87.4755 | 7.7100e-003 | | 87.6682 |
| Vendor | 0.0206 | 0.5270 | 0.1396 | 1.1100e-003 | 0.0271 | 4.1200e-003 | 0.0312 | 7.8000e-003 | 3.9400e-003 | 0.0117 | | 119.2760 | 119.2760 | 9.4500e-003 | | 119.5123 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2341** | **0.9922** | **1.8483** | **6.2400e-003** | **0.4389** | **8.2100e-003** | **0.4471** | **0.1172** | **7.7600e-003** | **0.1249** | | **637.4192** | **637.4192** | **0.0319** | | **638.2167** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5503 | 6.0575 | 5.7013 | 8.6400e-003 | | 0.3015 | 0.3015 | | 0.2774 | 0.2774 | 0.0000 | 869.0317 | 869.0317 | 0.2705 | | 875.7952 |
| **Total** | **0.5503** | **6.0575** | **5.7013** | **8.6400e-003** | **0.0000** | **0.3015** | **0.3015** | **0.0000** | **0.2774** | **0.2774** | **0.0000** | **869.0317** | **869.0317** | **0.2705** | | **875.7952** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.1500e-003 | 0.3181 | 0.0656 | 8.0000e-004 | 0.0175 | 1.2500e-003 | 0.0187 | 4.7900e-003 | 1.2000e-003 | 5.9900e-003 | | 87.4755 | 87.4755 | 7.7100e-003 | | 87.6682 |
| Vendor | 0.0206 | 0.5270 | 0.1396 | 1.1100e-003 | 0.0271 | 4.1200e-003 | 0.0312 | 7.8000e-003 | 3.9400e-003 | 0.0117 | | 119.2760 | 119.2760 | 9.4500e-003 | | 119.5123 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2341** | **0.9922** | **1.8483** | **6.2400e-003** | **0.4389** | **8.2100e-003** | **0.4471** | **0.1172** | **7.7600e-003** | **0.1249** | | **637.4192** | **637.4192** | **0.0319** | | **638.2167** |

## 4.0 Operational Detail - Mobile

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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| Unmitigated | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| Consumer Products | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

### 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 | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

## 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**

| 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

# Concrete With 20% or more Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme San Diego County, Winter

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.88 | 1000sqft | 0.59 | 25,875.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With Significant Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Pump use assumed 20% of constuction time.

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4 interim or better.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12938 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 38813 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblLandUse | LandUseSquareFeet | 25,880.00 | 25,875.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 32.09 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 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 | 5,984,750.00 | 0.00 |

# 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 | | | | | |
| 2018 | 3.0829 | 25.7558 | 23.7871 | 0.0421 | 0.7637 | 1.5507 | 2.3144 | 0.1200 | 1.5263 | 1.6462 | 0.0000 | 4,067.3715 | 4,067.3715 | 0.5070 | 0.0000 | 4,080.0473 |
| **Maximum** | **3.0829** | **25.7558** | **23.7871** | **0.0421** | **0.7637** | **1.5507** | **2.3144** | **0.1200** | **1.5263** | **1.6462** | **0.0000** | **4,067.3715** | **4,067.3715** | **0.5070** | **0.0000** | **4,080.0473** |

### 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 | 0.8157 | 15.5383 | 25.7683 | 0.0421 | 0.4721 | 0.1046 | 0.5767 | 0.0885 | 0.1042 | 0.1927 | 0.0000 | 4,067.3715 | 4,067.3715 | 0.5070 | 0.0000 | 4,080.0473 |
| **Maximum** | **0.8157** | **15.5383** | **25.7683** | **0.0421** | **0.4721** | **0.1046** | **0.5767** | **0.0885** | **0.1042** | **0.1927** | **0.0000** | **4,067.3715** | **4,067.3715** | **0.5070** | **0.0000** | **4,080.0473** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **73.54** | **39.67** | **-8.33** | **0.00** | **38.19** | **93.26** | **75.08** | **26.25** | **93.17** | **88.30** | **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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

### 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/2/2018 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/14/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 8.00 | 4.00 | 10.00 | 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 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0721 | 0.0516 | 0.4871 | 1.2700e-003 | 0.1232 | 8.9000e-004 | 0.1241 | 0.0327 | 8.2000e-004 | 0.0335 | | 126.3491 | 126.3491 | 4.3800e-003 | | 126.4586 |
| **Total** | **0.0721** | **0.0516** | **0.4871** | **1.2700e-003** | **0.1232** | **8.9000e-004** | **0.1241** | **0.0327** | **8.2000e-004** | **0.0335** | | **126.3491** | **126.3491** | **4.3800e-003** | | **126.4586** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0721 | 0.0516 | 0.4871 | 1.2700e-003 | 0.1232 | 8.9000e-004 | 0.1241 | 0.0327 | 8.2000e-004 | 0.0335 | | 126.3491 | 126.3491 | 4.3800e-003 | | 126.4586 |
| **Total** | **0.0721** | **0.0516** | **0.4871** | **1.2700e-003** | **0.1232** | **8.9000e-004** | **0.1241** | **0.0327** | **8.2000e-004** | **0.0335** | | **126.3491** | **126.3491** | **4.3800e-003** | | **126.4586** |

## 3.3 Maintenance Activities - 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 | 0.5487 | 6.0408 | 5.6914 | 8.6200e-003 | | 0.3006 | 0.3006 | | 0.2766 | 0.2766 | | 867.6776 | 867.6776 | 0.2701 | | 874.4306 |
| **Total** | **0.5487** | **6.0408** | **5.6914** | **8.6200e-003** | **0.0000** | **0.3006** | **0.3006** | **0.0000** | **0.2766** | **0.2766** | | **867.6776** | **867.6776** | **0.2701** | | **874.4306** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.4200e-003 | 0.3215 | 0.0705 | 7.9000e-004 | 0.0175 | 1.2800e-003 | 0.0188 | 4.7900e-003 | 1.2300e-003 | 6.0100e-003 | | 86.0239 | 86.0239 | 8.0000e-003 | | 86.2239 |
| Vendor | 0.0215 | 0.5279 | 0.1544 | 1.0900e-003 | 0.0271 | 4.1900e-003 | 0.0313 | 7.8000e-003 | 4.0100e-003 | 0.0118 | | 116.2792 | 116.2792 | 0.0101 | | 116.5307 |
| Worker | 0.0385 | 0.0275 | 0.2598 | 6.8000e-004 | 0.0657 | 4.7000e-004 | 0.0662 | 0.0174 | 4.4000e-004 | 0.0179 | | 67.3862 | 67.3862 | 2.3400e-003 | | 67.4446 |
| **Total** | **0.0694** | **0.8769** | **0.4847** | **2.5600e-003** | **0.1103** | **5.9400e-003** | **0.1162** | **0.0300** | **5.6800e-003** | **0.0357** | | **269.6892** | **269.6892** | **0.0204** | | **270.1992** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1316 | 4.0522 | 6.5429 | 8.6200e-003 | | 0.0583 | 0.0583 | | 0.0583 | 0.0583 | 0.0000 | 867.6776 | 867.6776 | 0.2701 | | 874.4306 |
| **Total** | **0.1316** | **4.0522** | **6.5429** | **8.6200e-003** | **0.0000** | **0.0583** | **0.0583** | **0.0000** | **0.0583** | **0.0583** | **0.0000** | **867.6776** | **867.6776** | **0.2701** | | **874.4306** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.4200e-003 | 0.3215 | 0.0705 | 7.9000e-004 | 0.0175 | 1.2800e-003 | 0.0188 | 4.7900e-003 | 1.2300e-003 | 6.0100e-003 | | 86.0239 | 86.0239 | 8.0000e-003 | | 86.2239 |
| Vendor | 0.0215 | 0.5279 | 0.1544 | 1.0900e-003 | 0.0271 | 4.1900e-003 | 0.0313 | 7.8000e-003 | 4.0100e-003 | 0.0118 | | 116.2792 | 116.2792 | 0.0101 | | 116.5307 |
| Worker | 0.0385 | 0.0275 | 0.2598 | 6.8000e-004 | 0.0657 | 4.7000e-004 | 0.0662 | 0.0174 | 4.4000e-004 | 0.0179 | | 67.3862 | 67.3862 | 2.3400e-003 | | 67.4446 |
| **Total** | **0.0694** | **0.8769** | **0.4847** | **2.5600e-003** | **0.1103** | **5.9400e-003** | **0.1162** | **0.0300** | **5.6800e-003** | **0.0357** | | **269.6892** | **269.6892** | **0.0204** | | **270.1992** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| Unmitigated | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| Consumer Products | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

### 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 | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

## 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**

| 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

# Concrete With 20% or more Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme San Diego County, Winter

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.88 | 1000sqft | 0.59 | 25,875.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With 20% or More Veg Removal & Minor Concrete Repair – San Diego River Camino del Rio Segme - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Pump use assumed 20% of constuction time.

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12938 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 38813 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstructionPhase | NumDays | 2.00 | 10.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |

| | | | |
|---|---|---|---|
| tblLandUse | LandUseSquareFeet | 25,880.00 | 25,875.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 32.09 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,984,750.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.2047 | 25.8586 | 24.6088 | 0.0442 | 0.9691 | 1.5531 | 2.5222 | 0.1744 | 1.5285 | 1.7029 | 0.0000 | 4,279.3074 | 4,279.3074 | 0.5148 | 0.0000 | 4,292.1762 |
| **Maximum** | **3.2047** | **25.8586** | **24.6088** | **0.0442** | **0.9691** | **1.5531** | **2.5222** | **0.1744** | **1.5285** | **1.7029** | **0.0000** | **4,279.3074** | **4,279.3074** | **0.5148** | **0.0000** | **4,292.1762** |

### 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 | 3.2047 | 25.8586 | 24.6088 | 0.0442 | 0.6775 | 1.5531 | 2.2305 | 0.1429 | 1.5285 | 1.6714 | 0.0000 | 4,279.3074 | 4,279.3074 | 0.5148 | 0.0000 | 4,292.1762 |
| **Maximum** | **3.2047** | **25.8586** | **24.6088** | **0.0442** | **0.6775** | **1.5531** | **2.2305** | **0.1429** | **1.5285** | **1.6714** | **0.0000** | **4,279.3074** | **4,279.3074** | **0.5148** | **0.0000** | **4,292.1762** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **30.09** | **0.00** | **11.56** | **18.05** | **0.00** | **1.85** | **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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

### 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | **0.0000** | **6.0500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/2/2018 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/14/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 48.00 | 4.00 | 10.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | 0.5503 | 6.0575 | 5.7013 | 8.6400e-003 | | 0.3015 | 0.3015 | | 0.2774 | 0.2774 | | 869.0317 | 869.0317 | 0.2705 | | 875.7952 |
| **Total** | **0.5503** | **6.0575** | **5.7013** | **8.6400e-003** | **0.0000** | **0.3015** | **0.3015** | **0.0000** | **0.2774** | **0.2774** | | **869.0317** | **869.0317** | **0.2705** | | **875.7952** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.4200e-003 | 0.3215 | 0.0705 | 7.9000e-004 | 0.0175 | 1.2800e-003 | 0.0188 | 4.7900e-003 | 1.2300e-003 | 6.0100e-003 | | 86.0239 | 86.0239 | 8.0000e-003 | | 86.2239 |
| Vendor | 0.0215 | 0.5279 | 0.1544 | 1.0900e-003 | 0.0271 | 4.1900e-003 | 0.0313 | 7.8000e-003 | 4.0100e-003 | 0.0118 | | 116.2792 | 116.2792 | 0.0101 | | 116.5307 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2617** | **1.0146** | **1.7836** | **5.9400e-003** | **0.4389** | **8.3100e-003** | **0.4472** | **0.1172** | **7.8600e-003** | **0.1250** | | **606.6202** | **606.6202** | **0.0321** | | **607.4220** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5503 | 6.0575 | 5.7013 | 8.6400e-003 | | 0.3015 | 0.3015 | | 0.2774 | 0.2774 | 0.0000 | 869.0317 | 869.0317 | 0.2705 | | 875.7952 |
| **Total** | **0.5503** | **6.0575** | **5.7013** | **8.6400e-003** | **0.0000** | **0.3015** | **0.3015** | **0.0000** | **0.2774** | **0.2774** | **0.0000** | **869.0317** | **869.0317** | **0.2705** | | **875.7952** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 9.4200e-003 | 0.3215 | 0.0705 | 7.9000e-004 | 0.0175 | 1.2800e-003 | 0.0188 | 4.7900e-003 | 1.2300e-003 | 6.0100e-003 | | 86.0239 | 86.0239 | 8.0000e-003 | | 86.2239 |
| Vendor | 0.0215 | 0.5279 | 0.1544 | 1.0900e-003 | 0.0271 | 4.1900e-003 | 0.0313 | 7.8000e-003 | 4.0100e-003 | 0.0118 | | 116.2792 | 116.2792 | 0.0101 | | 116.5307 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2617** | **1.0146** | **1.7836** | **5.9400e-003** | **0.4389** | **8.3100e-003** | **0.4472** | **0.1172** | **7.8600e-003** | **0.1250** | | **606.6202** | **606.6202** | **0.0321** | | **607.4220** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| Unmitigated | 0.5540 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-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 |
| Consumer Products | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

### 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 | 0.5537 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.6600e-003 | 5.6600e-003 | 2.0000e-005 | | 6.0500e-003 |
| **Total** | **0.5540** | **2.0000e-005** | **2.6700e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.6600e-003** | **5.6600e-003** | **2.0000e-005** | | **6.0500e-003** |

## 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**

| 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

# Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se San Diego County, Annual

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 31.90 | 1000sqft | 0.73 | 31,900.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Adjusted to project specifics

Vehicle Trips - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i or greater

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 15950 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 47850 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cranes |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 39.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 175.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 7,376,875.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0136 | 0.1443 | 0.1081 | 2.5000e-004 | 5.0800e-003 | 6.4600e-003 | 0.0115 | 1.2400e-003 | 6.1000e-003 | 7.3300e-003 | 0.0000 | 23.0266 | 23.0266 | 3.9400e-003 | 0.0000 | 23.1252 |
| **Maximum** | **0.0136** | **0.1443** | **0.1081** | **2.5000e-004** | **5.0800e-003** | **6.4600e-003** | **0.0115** | **1.2400e-003** | **6.1000e-003** | **7.3300e-003** | **0.0000** | **23.0266** | **23.0266** | **3.9400e-003** | **0.0000** | **23.1252** |

### 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 | 7.6100e-003 | 0.0808 | 0.1156 | 2.5000e-004 | 4.6400e-003 | 2.3100e-003 | 6.9500e-003 | 1.1900e-003 | 2.1700e-003 | 3.3600e-003 | 0.0000 | 23.0266 | 23.0266 | 3.9400e-003 | 0.0000 | 23.1252 |
| **Maximum** | **7.6100e-003** | **0.0808** | **0.1156** | **2.5000e-004** | **4.6400e-003** | **2.3100e-003** | **6.9500e-003** | **1.1900e-003** | **2.1700e-003** | **3.3600e-003** | **0.0000** | **23.0266** | **23.0266** | **3.9400e-003** | **0.0000** | **23.1252** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **44.13** | **43.99** | **-6.90** | **0.00** | **8.66** | **64.24** | **39.77** | **4.03** | **64.43** | **54.16** | **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 | 3-1-2018 | 5-31-2018 | 0.1664 | 0.0930 |
| | | Highest | 0.1664 | 0.0930 |

## 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 | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-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 | 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** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

## 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 | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-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 | 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** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/20/2018 | 5 | 14 | |

Concrete With less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County,

Annual **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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 48.00 | 2.00 | 175.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Concrete With less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County,

Annual Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Pump Use - 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 | | | | | 8.0000e-004 | 0.0000 | 8.0000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **8.0000e-004** | **1.8600e-003** | **2.6600e-003** | **9.0000e-005** | **1.8600e-003** | **1.9500e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 3.6000e-004 | 0.0000 | 3.6000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.1000e-004 | 0.0158 | 0.0274 | 4.0000e-005 | | 6.0000e-005 | 6.0000e-005 | | 6.0000e-005 | 6.0000e-005 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **8.1000e-004** | **0.0158** | **0.0274** | **4.0000e-005** | **3.6000e-004** | **6.0000e-005** | **4.2000e-004** | **4.0000e-005** | **6.0000e-005** | **1.0000e-004** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.3 Maintenance Activities - 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 | 7.7100e-003 | 0.0847 | 0.0651 | 1.0000e-004 | | 4.4500e-003 | 4.4500e-003 | | 4.0900e-003 | 4.0900e-003 | 0.0000 | 9.3483 | 9.3483 | 2.9100e-003 | 0.0000 | 9.4211 |
| **Total** | **7.7100e-003** | **0.0847** | **0.0651** | **1.0000e-004** | **0.0000** | **4.4500e-003** | **4.4500e-003** | **0.0000** | **4.0900e-003** | **4.0900e-003** | **0.0000** | **9.3483** | **9.3483** | **2.9100e-003** | **0.0000** | **9.4211** |

## 3.3 Maintenance Activities - 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 | 8.1000e-004 | 0.0284 | 5.9300e-003 | 7.0000e-005 | 1.5000e-003 | 1.1000e-004 | 1.6100e-003 | 4.1000e-004 | 1.1000e-004 | 5.2000e-004 | 0.0000 | 6.8953 | 6.8953 | 6.2000e-004 | 0.0000 | 6.9109 |
| Vendor | 7.0000e-005 | 1.8700e-003 | 5.1000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 1.1000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.3747 | 0.3747 | 3.0000e-005 | 0.0000 | 0.3755 |
| Worker | 1.4400e-003 | 1.1400e-003 | 0.0109 | 3.0000e-005 | 2.6900e-003 | 2.0000e-005 | 2.7100e-003 | 7.2000e-004 | 2.0000e-005 | 7.3000e-004 | 0.0000 | 2.5932 | 2.5932 | 9.0000e-005 | 0.0000 | 2.5954 |
| **Total** | **2.3200e-003** | **0.0314** | **0.0174** | **1.0000e-004** | **4.2800e-003** | **1.4000e-004** | **4.4300e-003** | **1.1600e-003** | **1.4000e-004** | **1.2900e-003** | **0.0000** | **9.8632** | **9.8632** | **7.4000e-004** | **0.0000** | **9.8817** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.4700e-003 | 0.0336 | 0.0709 | 1.0000e-004 | | 2.1100e-003 | 2.1100e-003 | | 1.9700e-003 | 1.9700e-003 | 0.0000 | 9.3483 | 9.3483 | 2.9100e-003 | 0.0000 | 9.4211 |
| **Total** | **4.4700e-003** | **0.0336** | **0.0709** | **1.0000e-004** | **0.0000** | **2.1100e-003** | **2.1100e-003** | **0.0000** | **1.9700e-003** | **1.9700e-003** | **0.0000** | **9.3483** | **9.3483** | **2.9100e-003** | **0.0000** | **9.4211** |

### 3.3 Maintenance Activities - 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 | 8.1000e-004 | 0.0284 | 5.9300e-003 | 7.0000e-005 | 1.5000e-003 | 1.1000e-004 | 1.6100e-003 | 4.1000e-004 | 1.1000e-004 | 5.2000e-004 | 0.0000 | 6.8953 | 6.8953 | 6.2000e-004 | 0.0000 | 6.9109 |
| Vendor | 7.0000e-005 | 1.8700e-003 | 5.1000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 1.1000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.3747 | 0.3747 | 3.0000e-005 | 0.0000 | 0.3755 |
| Worker | 1.4400e-003 | 1.1400e-003 | 0.0109 | 3.0000e-005 | 2.6900e-003 | 2.0000e-005 | 2.7100e-003 | 7.2000e-004 | 2.0000e-005 | 7.3000e-004 | 0.0000 | 2.5932 | 2.5932 | 9.0000e-005 | 0.0000 | 2.5954 |
| **Total** | **2.3200e-003** | **0.0314** | **0.0174** | **1.0000e-004** | **4.2800e-003** | **1.4000e-004** | **4.4300e-003** | **1.1600e-003** | **1.4000e-004** | **1.2900e-003** | **0.0000** | **9.8632** | **9.8632** | **7.4000e-004** | **0.0000** | **9.8817** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-004 |
| Unmitigated | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-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 |
| Consumer Products | 0.1246 | | | | | 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 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-004 |
| **Total** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

**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 | 0.1246 | | | | | 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 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-004 |
| **Total** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

## 7.0 Water Detail

# 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Concrete With Minimal Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 31.90 | 1000sqft | 0.73 | 31,900.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Adjusted to project specifics

Vehicle Trips - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 15950 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 47850 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 4.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 39.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 175.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 7,376,875.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0147 | 0.1589 | 0.1088 | 2.6000e-004 | 5.0800e-003 | 6.8400e-003 | 0.0119 | 1.2400e-003 | 6.4500e-003 | 7.6900e-003 | 0.0000 | 23.8770 | 23.8770 | 4.2100e-003 | 0.0000 | 23.9822 |
| **Maximum** | **0.0147** | **0.1589** | **0.1088** | **2.6000e-004** | **5.0800e-003** | **6.8400e-003** | **0.0119** | **1.2400e-003** | **6.4500e-003** | **7.6900e-003** | **0.0000** | **23.8770** | **23.8770** | **4.2100e-003** | **0.0000** | **23.9822** |

### 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 | 0.0147 | 0.1589 | 0.1088 | 2.6000e-004 | 4.6400e-003 | 6.8400e-003 | 0.0115 | 1.1900e-003 | 6.4500e-003 | 7.6400e-003 | 0.0000 | 23.8770 | 23.8770 | 4.2100e-003 | 0.0000 | 23.9822 |
| **Maximum** | **0.0147** | **0.1589** | **0.1088** | **2.6000e-004** | **4.6400e-003** | **6.8400e-003** | **0.0115** | **1.1900e-003** | **6.4500e-003** | **7.6400e-003** | **0.0000** | **23.8770** | **23.8770** | **4.2100e-003** | **0.0000** | **23.9822** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **8.66** | **0.00** | **3.69** | **4.03** | **0.00** | **0.65** | **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 | 3-1-2018 | 5-31-2018 | 0.1825 | 0.1825 |
| | | Highest | 0.1825 | 0.1825 |

## 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 | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-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 | 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** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

## 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 | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-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 | 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** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/20/2018 | 5 | 14 | |

Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County,

Annual **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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Cranes | 1 | 8.00 | 231 | 0.29 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 4.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 5 | 48.00 | 2.00 | 175.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Pump Use - 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 | | | | | 8.0000e-004 | 0.0000 | 8.0000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **8.0000e-004** | **1.8600e-003** | **2.6600e-003** | **9.0000e-005** | **1.8600e-003** | **1.9500e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

### Unmitigated Construction Off-Site

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

## 3.2 Pump Use - 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 3.6000e-004 | 0.0000 | 3.6000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **3.6000e-004** | **1.8600e-003** | **2.2200e-003** | **4.0000e-005** | **1.8600e-003** | **1.9000e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

### Mitigated Construction Off-Site

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

## 3.3 Maintenance Activities - 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 | 8.7800e-003 | 0.0994 | 0.0657 | 1.1000e-004 | | 4.8300e-003 | 4.8300e-003 | | 4.4400e-003 | 4.4400e-003 | 0.0000 | 10.1987 | 10.1987 | 3.1700e-003 | 0.0000 | 10.2781 |
| **Total** | **8.7800e-003** | **0.0994** | **0.0657** | **1.1000e-004** | **0.0000** | **4.8300e-003** | **4.8300e-003** | **0.0000** | **4.4400e-003** | **4.4400e-003** | **0.0000** | **10.1987** | **10.1987** | **3.1700e-003** | **0.0000** | **10.2781** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 8.1000e-004 | 0.0284 | 5.9300e-003 | 7.0000e-005 | 1.5000e-003 | 1.1000e-004 | 1.6100e-003 | 4.1000e-004 | 1.1000e-004 | 5.2000e-004 | 0.0000 | 6.8953 | 6.8953 | 6.2000e-004 | 0.0000 | 6.9109 |
| Vendor | 7.0000e-005 | 1.8700e-003 | 5.1000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 1.1000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.3747 | 0.3747 | 3.0000e-005 | 0.0000 | 0.3755 |
| Worker | 1.4400e-003 | 1.1400e-003 | 0.0109 | 3.0000e-005 | 2.6900e-003 | 2.0000e-005 | 2.7100e-003 | 7.2000e-004 | 2.0000e-005 | 7.3000e-004 | 0.0000 | 2.5932 | 2.5932 | 9.0000e-005 | 0.0000 | 2.5954 |
| **Total** | **2.3200e-003** | **0.0314** | **0.0174** | **1.0000e-004** | **4.2800e-003** | **1.4000e-004** | **4.4300e-003** | **1.1600e-003** | **1.4000e-004** | **1.2900e-003** | **0.0000** | **9.8632** | **9.8632** | **7.4000e-004** | **0.0000** | **9.8817** |

## 3.3 Maintenance Activities - 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 | 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 | 8.7800e-003 | 0.0994 | 0.0657 | 1.1000e-004 | | 4.8300e-003 | 4.8300e-003 | | 4.4400e-003 | 4.4400e-003 | 0.0000 | 10.1987 | 10.1987 | 3.1700e-003 | 0.0000 | 10.2780 |
| **Total** | **8.7800e-003** | **0.0994** | **0.0657** | **1.1000e-004** | **0.0000** | **4.8300e-003** | **4.8300e-003** | **0.0000** | **4.4400e-003** | **4.4400e-003** | **0.0000** | **10.1987** | **10.1987** | **3.1700e-003** | **0.0000** | **10.2780** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 8.1000e-004 | 0.0284 | 5.9300e-003 | 7.0000e-005 | 1.5000e-003 | 1.1000e-004 | 1.6100e-003 | 4.1000e-004 | 1.1000e-004 | 5.2000e-004 | 0.0000 | 6.8953 | 6.8953 | 6.2000e-004 | 0.0000 | 6.9109 |
| Vendor | 7.0000e-005 | 1.8700e-003 | 5.1000e-004 | 0.0000 | 9.0000e-005 | 1.0000e-005 | 1.1000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.3747 | 0.3747 | 3.0000e-005 | 0.0000 | 0.3755 |
| Worker | 1.4400e-003 | 1.1400e-003 | 0.0109 | 3.0000e-005 | 2.6900e-003 | 2.0000e-005 | 2.7100e-003 | 7.2000e-004 | 2.0000e-005 | 7.3000e-004 | 0.0000 | 2.5932 | 2.5932 | 9.0000e-005 | 0.0000 | 2.5954 |
| **Total** | **2.3200e-003** | **0.0314** | **0.0174** | **1.0000e-004** | **4.2800e-003** | **1.4000e-004** | **4.4300e-003** | **1.1600e-003** | **1.4000e-004** | **1.2900e-003** | **0.0000** | **9.8632** | **9.8632** | **7.4000e-004** | **0.0000** | **9.8817** |

## 4.0 Operational Detail - Mobile

Annual **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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

Annual **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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-004 |
| Unmitigated | 0.1246 | 0.0000 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-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 |
| Consumer Products | 0.1246 | | | | | 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 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-004 |
| **Total** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

### 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 | 0.1246 | | | | | 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 | 3.0000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.7000e-004 | 5.7000e-004 | 0.0000 | 0.0000 | 6.1000e-004 |
| **Total** | **0.1246** | **0.0000** | **3.0000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **0.0000** | **6.1000e-004** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Concrete With Minimal Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 31.90 | 1000sqft | 0.73 | 31,900.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Adjusted to project specifics

Vehicle Trips - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i or greater

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 15950 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 47850 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cranes |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 39.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 175.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 7,376,875.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.8235 | 35.2707 | 28.9558 | 0.0592 | 1.1565 | 1.8992 | 3.0557 | 0.2256 | 1.8474 | 2.0730 | 0.0000 | 5,859.5111 | 5,859.5111 | 0.7863 | 0.0000 | 5,879.1680 |
| **Maximum** | **3.8235** | **35.2707** | **28.9558** | **0.0592** | **1.1565** | **1.8992** | **3.0557** | **0.2256** | **1.8474** | **2.0730** | **0.0000** | **5,859.5111** | **5,859.5111** | **0.7863** | **0.0000** | **5,879.1680** |

### 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 | 1.5108 | 19.7376 | 30.9105 | 0.0592 | 0.8649 | 0.3607 | 1.2256 | 0.1941 | 0.3406 | 0.5347 | 0.0000 | 5,859.5111 | 5,859.5111 | 0.7863 | 0.0000 | 5,879.1680 |
| **Maximum** | **1.5108** | **19.7376** | **30.9105** | **0.0592** | **0.8649** | **0.3607** | **1.2256** | **0.1941** | **0.3406** | **0.5347** | **0.0000** | **5,859.5111** | **5,859.5111** | **0.7863** | **0.0000** | **5,879.1680** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **60.49** | **44.04** | **-6.75** | **0.00** | **25.22** | **81.01** | **59.89** | **13.96** | **81.56** | **74.21** | **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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

### 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/20/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 48.00 | 2.00 | 175.00 | 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 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | 1.1018 | 12.0976 | 9.2989 | 0.0146 | | 0.6354 | 0.6354 | | 0.5846 | 0.5846 | | 1,472.1066 | 1,472.1066 | 0.4583 | | 1,483.5638 |
| **Total** | **1.1018** | **12.0976** | **9.2989** | **0.0146** | **0.0000** | **0.6354** | **0.6354** | **0.0000** | **0.5846** | **0.5846** | | **1,472.1066** | **1,472.1066** | **0.4583** | | **1,483.5638** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1144 | 3.9759 | 0.8200 | 0.0101 | 0.2184 | 0.0156 | 0.2341 | 0.0599 | 0.0150 | 0.0748 | | 1,093.4432 | 1,093.4432 | 0.0964 | | 1,095.8529 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.3290** | **4.3866** | **2.5330** | **0.0149** | **0.6263** | **0.0205** | **0.6468** | **0.1684** | **0.0196** | **0.1879** | | **1,583.7489** | **1,583.7489** | **0.1159** | | **1,586.6452** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6391 | 4.7935 | 10.1239 | 0.0146 | | 0.3007 | 0.3007 | | 0.2816 | 0.2816 | 0.0000 | 1,472.1066 | 1,472.1066 | 0.4583 | | 1,483.5638 |
| **Total** | **0.6391** | **4.7935** | **10.1239** | **0.0146** | **0.0000** | **0.3007** | **0.3007** | **0.0000** | **0.2816** | **0.2816** | **0.0000** | **1,472.1066** | **1,472.1066** | **0.4583** | | **1,483.5638** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1144 | 3.9759 | 0.8200 | 0.0101 | 0.2184 | 0.0156 | 0.2341 | 0.0599 | 0.0150 | 0.0748 | | 1,093.4432 | 1,093.4432 | 0.0964 | | 1,095.8529 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.3290** | **4.3866** | **2.5330** | **0.0149** | **0.6263** | **0.0205** | **0.6468** | **0.1684** | **0.0196** | **0.1879** | | **1,583.7489** | **1,583.7489** | **0.1159** | | **1,586.6452** |

## 4.0 Operational Detail - Mobile

 **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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County,

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| Unmitigated | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| Consumer Products | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

### 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 | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

## 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**

| 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

# Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se San Diego County, Summer

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 31.90 | 1000sqft | 0.73 | 31,900.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Adjusted to project specifics

Vehicle Trips - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 15950 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 47850 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 4.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 39.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 175.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 7,376,875.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.9759 | 37.3662 | 29.0483 | 0.0605 | 1.1565 | 1.9537 | 3.1102 | 0.2256 | 1.8975 | 2.1231 | 0.0000 | 5,993.4221 | 5,993.4221 | 0.8280 | 0.0000 | 6,014.1211 |
| **Maximum** | **3.9759** | **37.3662** | **29.0483** | **0.0605** | **1.1565** | **1.9537** | **3.1102** | **0.2256** | **1.8975** | **2.1231** | **0.0000** | **5,993.4221** | **5,993.4221** | **0.8280** | **0.0000** | **6,014.1211** |

### 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 | 3.9759 | 37.3662 | 29.0483 | 0.0605 | 0.8649 | 1.9537 | 2.8185 | 0.1941 | 1.8975 | 2.0916 | 0.0000 | 5,993.4221 | 5,993.4221 | 0.8280 | 0.0000 | 6,014.1211 |
| **Maximum** | **3.9759** | **37.3662** | **29.0483** | **0.0605** | **0.8649** | **1.9537** | **2.8185** | **0.1941** | **1.8975** | **2.0916** | **0.0000** | **5,993.4221** | **5,993.4221** | **0.8280** | **0.0000** | **6,014.1211** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **25.22** | **0.00** | **9.38** | **13.96** | **0.00** | **1.48** | **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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

### 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/20/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Cranes | 1 | 8.00 | 231 | 0.29 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 4.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 5 | 48.00 | 2.00 | 175.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | 1.2541 | 14.1932 | 9.3915 | 0.0160 | | 0.6899 | 0.6899 | | 0.6347 | 0.6347 | | 1,606.0176 | 1,606.0176 | 0.5000 | | 1,618.5170 |
| **Total** | **1.2541** | **14.1932** | **9.3915** | **0.0160** | **0.0000** | **0.6899** | **0.6899** | **0.0000** | **0.6347** | **0.6347** | | **1,606.0176** | **1,606.0176** | **0.5000** | | **1,618.5170** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1144 | 3.9759 | 0.8200 | 0.0101 | 0.2184 | 0.0156 | 0.2341 | 0.0599 | 0.0150 | 0.0748 | | 1,093.4432 | 1,093.4432 | 0.0964 | | 1,095.8529 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.3290** | **4.3866** | **2.5330** | **0.0149** | **0.6263** | **0.0205** | **0.6468** | **0.1684** | **0.0196** | **0.1879** | | **1,583.7489** | **1,583.7489** | **0.1159** | | **1,586.6452** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2541 | 14.1932 | 9.3915 | 0.0160 | | 0.6899 | 0.6899 | | 0.6347 | 0.6347 | 0.0000 | 1,606.0176 | 1,606.0176 | 0.5000 | | 1,618.5170 |
| **Total** | **1.2541** | **14.1932** | **9.3915** | **0.0160** | **0.0000** | **0.6899** | **0.6899** | **0.0000** | **0.6347** | **0.6347** | **0.0000** | **1,606.0176** | **1,606.0176** | **0.5000** | | **1,618.5170** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1144 | 3.9759 | 0.8200 | 0.0101 | 0.2184 | 0.0156 | 0.2341 | 0.0599 | 0.0150 | 0.0748 | | 1,093.4432 | 1,093.4432 | 0.0964 | | 1,095.8529 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.3290** | **4.3866** | **2.5330** | **0.0149** | **0.6263** | **0.0205** | **0.6468** | **0.1684** | **0.0196** | **0.1879** | | **1,583.7489** | **1,583.7489** | **0.1159** | | **1,586.6452** |

## 4.0 Operational Detail - Mobile

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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| Unmitigated | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| Consumer Products | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

### 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 | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

## 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**

| 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

# Concrete With Minimal Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 31.90 | 1000sqft | 0.73 | 31,900.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Adjusted to project specifics

Vehicle Trips - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i or greater

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 15950 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 47850 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cranes |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | PhaseName | | Maintenance Activities |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 39.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 175.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 7,376,875.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.8537 | 35.3317 | 28.9404 | 0.0587 | 1.1565 | 1.8996 | 3.0561 | 0.2256 | 1.8478 | 2.0734 | 0.0000 | 5,813.5173 | 5,813.5173 | 0.7895 | 0.0000 | 5,833.2539 |
| **Maximum** | **3.8537** | **35.3317** | **28.9404** | **0.0587** | **1.1565** | **1.8996** | **3.0561** | **0.2256** | **1.8478** | **2.0734** | **0.0000** | **5,813.5173** | **5,813.5173** | **0.7895** | **0.0000** | **5,833.2539** |

### 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 | 1.5410 | 19.7987 | 30.8951 | 0.0587 | 0.8649 | 0.3612 | 1.2260 | 0.1941 | 0.3410 | 0.5351 | 0.0000 | 5,813.5173 | 5,813.5173 | 0.7895 | 0.0000 | 5,833.2539 |
| **Maximum** | **1.5410** | **19.7987** | **30.8951** | **0.0587** | **0.8649** | **0.3612** | **1.2260** | **0.1941** | **0.3410** | **0.5351** | **0.0000** | **5,813.5173** | **5,813.5173** | **0.7895** | **0.0000** | **5,833.2539** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **60.01** | **43.96** | **-6.75** | **0.00** | **25.22** | **80.99** | **59.88** | **13.96** | **81.55** | **74.19** | **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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

### 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/20/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 48.00 | 2.00 | 175.00 | 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 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | 1.1018 | 12.0976 | 9.2989 | 0.0146 | | 0.6354 | 0.6354 | | 0.5846 | 0.5846 | | 1,472.1066 | 1,472.1066 | 0.4583 | | 1,483.5638 |
| **Total** | **1.1018** | **12.0976** | **9.2989** | **0.0146** | **0.0000** | **0.6354** | **0.6354** | **0.0000** | **0.5846** | **0.5846** | | **1,472.1066** | **1,472.1066** | **0.4583** | | **1,483.5638** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1177 | 4.0184 | 0.8817 | 9.8900e-003 | 0.2184 | 0.0160 | 0.2344 | 0.0599 | 0.0153 | 0.0752 | | 1,075.2985 | 1,075.2985 | 0.1000 | | 1,077.7984 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.3592** | **4.4477** | **2.5175** | **0.0145** | **0.6263** | **0.0210** | **0.6472** | **0.1684** | **0.0199** | **0.1883** | | **1,537.7551** | **1,537.7551** | **0.1190** | | **1,540.7312** |

### 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6391 | 4.7935 | 10.1239 | 0.0146 | | 0.3007 | 0.3007 | | 0.2816 | 0.2816 | 0.0000 | 1,472.1066 | 1,472.1066 | 0.4583 | | 1,483.5638 |
| **Total** | **0.6391** | **4.7935** | **10.1239** | **0.0146** | **0.0000** | **0.3007** | **0.3007** | **0.0000** | **0.2816** | **0.2816** | **0.0000** | **1,472.1066** | **1,472.1066** | **0.4583** | | **1,483.5638** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1177 | 4.0184 | 0.8817 | 9.8900e-003 | 0.2184 | 0.0160 | 0.2344 | 0.0599 | 0.0153 | 0.0752 | | 1,075.2985 | 1,075.2985 | 0.1000 | | 1,077.7984 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.3592** | **4.4477** | **2.5175** | **0.0145** | **0.6263** | **0.0210** | **0.6472** | **0.1684** | **0.0199** | **0.1883** | | **1,537.7551** | **1,537.7551** | **0.1190** | | **1,540.7312** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| Unmitigated | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| Consumer Products | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

### 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 | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

## 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**

| 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

# Concrete With Less than 20% Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se San Diego County, Winter

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 31.90 | 1000sqft | 0.73 | 31,900.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Concrete With Minimal Veg Removal & Minor Concrete Repair – Alvarado Canyon Creek - Mission Gorge Se - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Trips and VMT - Adjusted to project specifics

Vehicle Trips - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 15950 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 47850 | 0 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 4.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 39.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 175.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 7,376,875.00 | 0.00 |

## 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 | | | | | |
| 2018 | 4.0061 | 37.4273 | 29.0329 | 0.0601 | 1.1565 | 1.9541 | 3.1106 | 0.2256 | 1.8979 | 2.1235 | 0.0000 | 5,947.4283 | 5,947.4283 | 0.8312 | 0.0000 | 5,968.2071 |
| **Maximum** | **4.0061** | **37.4273** | **29.0329** | **0.0601** | **1.1565** | **1.9541** | **3.1106** | **0.2256** | **1.8979** | **2.1235** | **0.0000** | **5,947.4283** | **5,947.4283** | **0.8312** | **0.0000** | **5,968.2071** |

### 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 | 4.0061 | 37.4273 | 29.0329 | 0.0601 | 0.8649 | 1.9541 | 2.8189 | 0.1941 | 1.8979 | 2.0920 | 0.0000 | 5,947.4283 | 5,947.4283 | 0.8312 | 0.0000 | 5,968.2071 |
| **Maximum** | **4.0061** | **37.4273** | **29.0329** | **0.0601** | **0.8649** | **1.9541** | **2.8189** | **0.1941** | **1.8979** | **2.0920** | **0.0000** | **5,947.4283** | **5,947.4283** | **0.8312** | **0.0000** | **5,968.2071** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **25.22** | **0.00** | **9.38** | **13.96** | **0.00** | **1.48** | **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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

### 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | **0.0000** | **7.4500e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 3/20/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Cranes | 1 | 8.00 | 231 | 0.29 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 4.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 5 | 48.00 | 2.00 | 175.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | 1.2541 | 14.1932 | 9.3915 | 0.0160 | | 0.6899 | 0.6899 | | 0.6347 | 0.6347 | | 1,606.0176 | 1,606.0176 | 0.5000 | | 1,618.5170 |
| **Total** | **1.2541** | **14.1932** | **9.3915** | **0.0160** | **0.0000** | **0.6899** | **0.6899** | **0.0000** | **0.6347** | **0.6347** | | **1,606.0176** | **1,606.0176** | **0.5000** | | **1,618.5170** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1177 | 4.0184 | 0.8817 | 9.8900e-003 | 0.2184 | 0.0160 | 0.2344 | 0.0599 | 0.0153 | 0.0752 | | 1,075.2985 | 1,075.2985 | 0.1000 | | 1,077.7984 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.3592** | **4.4477** | **2.5175** | **0.0145** | **0.6263** | **0.0210** | **0.6472** | **0.1684** | **0.0199** | **0.1883** | | **1,537.7551** | **1,537.7551** | **0.1190** | | **1,540.7312** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.2541 | 14.1932 | 9.3915 | 0.0160 | | 0.6899 | 0.6899 | | 0.6347 | 0.6347 | 0.0000 | 1,606.0176 | 1,606.0176 | 0.5000 | | 1,618.5170 |
| **Total** | **1.2541** | **14.1932** | **9.3915** | **0.0160** | **0.0000** | **0.6899** | **0.6899** | **0.0000** | **0.6347** | **0.6347** | **0.0000** | **1,606.0176** | **1,606.0176** | **0.5000** | | **1,618.5170** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1177 | 4.0184 | 0.8817 | 9.8900e-003 | 0.2184 | 0.0160 | 0.2344 | 0.0599 | 0.0153 | 0.0752 | | 1,075.2985 | 1,075.2985 | 0.1000 | | 1,077.7984 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.3592** | **4.4477** | **2.5175** | **0.0145** | **0.6263** | **0.0210** | **0.6472** | **0.1684** | **0.0199** | **0.1883** | | **1,537.7551** | **1,537.7551** | **0.1190** | | **1,540.7312** |

## 4.0 Operational Detail - Mobile

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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| Unmitigated | 0.6830 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-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 |
| Consumer Products | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

### 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 | 0.6827 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.1000e-004 | 3.0000e-005 | 3.2900e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.9800e-003 | 6.9800e-003 | 2.0000e-005 | | 7.4500e-003 |
| **Total** | **0.6830** | **3.0000e-005** | **3.2900e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **6.9800e-003** | **6.9800e-003** | **2.0000e-005** | | **7.4500e-003** |

## 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**

| 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

# Repair of 50 linear feet of concrete channel lining (Generic)

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 0.05 | 1000sqft | 0.00 | 50.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - project specifics

Trips and VMT - Applicant provided

Vehicle Trips - construction emissions only

Energy Use - construction emissions only

Water And Wastewater - construction emissions only

Solid Waste - construction emissions only

Construction Off-road Equipment Mitigation - All construction equipment Tier 4 interim

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| 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 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 0.00 | 10.00 |
| tblConstructionPhase | PhaseEndDate | 12/31/2017 | 1/12/2018 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.06 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 18.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,562.50 | 0.00 |

## 2.0 Emissions Summary

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 7.9200e-003 | 0.0655 | 0.0611 | 1.0000e-004 | 7.4000e-004 | 4.0800e-003 | 4.8100e-003 | 2.0000e-004 | 3.9500e-003 | 4.1500e-003 | 0.0000 | 8.9818 | 8.9818 | 1.3600e-003 | 0.0000 | 9.0158 |
| **Maximum** | **7.9200e-003** | **0.0655** | **0.0611** | **1.0000e-004** | **7.4000e-004** | **4.0800e-003** | **4.8100e-003** | **2.0000e-004** | **3.9500e-003** | **4.1500e-003** | **0.0000** | **8.9818** | **8.9818** | **1.3600e-003** | **0.0000** | **9.0158** |

### 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 | 2.0100e-003 | 0.0367 | 0.0652 | 1.0000e-004 | 7.4000e-004 | 1.4000e-004 | 8.8000e-004 | 2.0000e-004 | 1.4000e-004 | 3.4000e-004 | 0.0000 | 8.9818 | 8.9818 | 1.3600e-003 | 0.0000 | 9.0158 |
| **Maximum** | **2.0100e-003** | **0.0367** | **0.0652** | **1.0000e-004** | **7.4000e-004** | **1.4000e-004** | **8.8000e-004** | **2.0000e-004** | **1.4000e-004** | **3.4000e-004** | **0.0000** | **8.9818** | **8.9818** | **1.3600e-003** | **0.0000** | **9.0158** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **74.62** | **44.01** | **-6.83** | **0.00** | **0.00** | **96.57** | **81.70** | **0.00** | **96.46** | **91.81** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 1-1-2018 | 3-31-2018 | 0.0630 | 0.0332 |
| | | Highest | 0.0630 | 0.0332 |

## 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 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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** | **2.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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** | **2.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/12/2018 | 5 | 10 | |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 0 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 6 | 18.00 | 0.00 | 2.00 | 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 - 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 | 7.5200e-003 | 0.0649 | 0.0581 | 9.0000e-005 | | 4.0700e-003 | 4.0700e-003 | | 3.9500e-003 | 3.9500e-003 | 0.0000 | 8.2084 | 8.2084 | 1.3300e-003 | 0.0000 | 8.2417 |
| **Total** | **7.5200e-003** | **0.0649** | **0.0581** | **9.0000e-005** | **0.0000** | **4.0700e-003** | **4.0700e-003** | **0.0000** | **3.9500e-003** | **3.9500e-003** | **0.0000** | **8.2084** | **8.2084** | **1.3300e-003** | **0.0000** | **8.2417** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.2000e-004 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0788 | 0.0788 | 1.0000e-005 | 0.0000 | 0.0790 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.8000e-004 | 3.0000e-004 | 2.9200e-003 | 1.0000e-005 | 7.2000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 0.0000 | 2.0000e-004 | 0.0000 | 0.6946 | 0.6946 | 2.0000e-005 | 0.0000 | 0.6952 |
| **Total** | **3.9000e-004** | **6.2000e-004** | **2.9900e-003** | **1.0000e-005** | **7.4000e-004** | **1.0000e-005** | **7.5000e-004** | **1.9000e-004** | **0.0000** | **2.1000e-004** | **0.0000** | **0.7734** | **0.7734** | **3.0000e-005** | **0.0000** | **0.7742** |

## 3.2 Grading - 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 | 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 | 1.6100e-003 | 0.0361 | 0.0623 | 9.0000e-005 | | 1.3000e-004 | 1.3000e-004 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | 8.2084 | 8.2084 | 1.3300e-003 | 0.0000 | 8.2417 |
| **Total** | **1.6100e-003** | **0.0361** | **0.0623** | **9.0000e-005** | **0.0000** | **1.3000e-004** | **1.3000e-004** | **0.0000** | **1.3000e-004** | **1.3000e-004** | **0.0000** | **8.2084** | **8.2084** | **1.3300e-003** | **0.0000** | **8.2417** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.2000e-004 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0788 | 0.0788 | 1.0000e-005 | 0.0000 | 0.0790 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.8000e-004 | 3.0000e-004 | 2.9200e-003 | 1.0000e-005 | 7.2000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 0.0000 | 2.0000e-004 | 0.0000 | 0.6946 | 0.6946 | 2.0000e-005 | 0.0000 | 0.6952 |
| **Total** | **3.9000e-004** | **6.2000e-004** | **2.9900e-003** | **1.0000e-005** | **7.4000e-004** | **1.0000e-005** | **7.5000e-004** | **1.9000e-004** | **0.0000** | **2.1000e-004** | **0.0000** | **0.7734** | **0.7734** | **3.0000e-005** | **0.0000** | **0.7742** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.5000e-004 | 0.0000 | 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 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 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 | 6.0000e-005 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.0000e-004 | | | | | 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 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **2.6000e-004** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | 6.0000e-005 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.0000e-004 | | | | | 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 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **2.6000e-004** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Repair of 50 linear feet of concrete channel lining (Generic)

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 0.05 | 1000sqft | 0.00 | 50.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - project specifics

Trips and VMT - Concrete Repair Methods Table assumptions sheet

Vehicle Trips - construction emissions only

Energy Use - construction emissions only

Water And Wastewater - construction emissions only

Solid Waste - construction emissions only

Construction Off-road Equipment Mitigation - fugitive dust control

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 0.00 | 10.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.06 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 18.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,562.50 | 0.00 |

## 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 | | | | | |
| 2018 | 8.0800e-003 | 0.0696 | 0.0622 | 1.1000e-004 | 9.4000e-004 | 4.1100e-003 | 5.0500e-003 | 2.5000e-004 | 3.9900e-003 | 4.2400e-003 | 0.0000 | 9.7909 | 9.7909 | 1.4300e-003 | 0.0000 | 9.8267 |
| **Maximum** | **8.0800e-003** | **0.0696** | **0.0622** | **1.1000e-004** | **9.4000e-004** | **4.1100e-003** | **5.0500e-003** | **2.5000e-004** | **3.9900e-003** | **4.2400e-003** | **0.0000** | **9.7909** | **9.7909** | **1.4300e-003** | **0.0000** | **9.8267** |

### 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 | 8.0800e-003 | 0.0696 | 0.0622 | 1.1000e-004 | 9.4000e-004 | 4.1100e-003 | 5.0500e-003 | 2.5000e-004 | 3.9900e-003 | 4.2400e-003 | 0.0000 | 9.7909 | 9.7909 | 1.4300e-003 | 0.0000 | 9.8267 |
| **Maximum** | **8.0800e-003** | **0.0696** | **0.0622** | **1.1000e-004** | **9.4000e-004** | **4.1100e-003** | **5.0500e-003** | **2.5000e-004** | **3.9900e-003** | **4.2400e-003** | **0.0000** | **9.7909** | **9.7909** | **1.4300e-003** | **0.0000** | **9.8267** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 3-1-2018 | 5-31-2018 | 0.0777 | 0.0777 |
| | | Highest | 0.0777 | 0.0777 |

## 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 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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** | **2.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 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** | **2.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 3/1/2018 | 3/14/2018 | 5 | 10 | |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Annual

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 0 | 0.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 6 | 18.00 | 6.00 | 2.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 7.5300e-003 | 0.0650 | 0.0581 | 9.0000e-005 | | 4.0700e-003 | 4.0700e-003 | | 3.9500e-003 | 3.9500e-003 | 0.0000 | 8.2146 | 8.2146 | 1.3300e-003 | 0.0000 | 8.2479 |
| **Total** | **7.5300e-003** | **0.0650** | **0.0581** | **9.0000e-005** | **0.0000** | **4.0700e-003** | **4.0700e-003** | **0.0000** | **3.9500e-003** | **3.9500e-003** | **0.0000** | **8.2146** | **8.2146** | **1.3300e-003** | **0.0000** | **8.2479** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.2000e-004 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0788 | 0.0788 | 1.0000e-005 | 0.0000 | 0.0790 |
| Vendor | 1.6000e-004 | 4.0000e-003 | 1.1000e-003 | 1.0000e-005 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 6.0000e-005 | 3.0000e-005 | 9.0000e-005 | 0.0000 | 0.8030 | 0.8030 | 7.0000e-005 | 0.0000 | 0.8046 |
| Worker | 3.8000e-004 | 3.0000e-004 | 2.9200e-003 | 1.0000e-005 | 7.2000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 0.0000 | 2.0000e-004 | 0.0000 | 0.6946 | 0.6946 | 2.0000e-005 | 0.0000 | 0.6952 |
| **Total** | **5.5000e-004** | **4.6200e-003** | **4.0900e-003** | **2.0000e-005** | **9.4000e-004** | **4.0000e-005** | **9.8000e-004** | **2.5000e-004** | **3.0000e-005** | **3.0000e-004** | **0.0000** | **1.5764** | **1.5764** | **1.0000e-004** | **0.0000** | **1.5788** |

## 3.2 Grading - 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 | 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 | 7.5300e-003 | 0.0650 | 0.0581 | 9.0000e-005 | | 4.0700e-003 | 4.0700e-003 | | 3.9500e-003 | 3.9500e-003 | 0.0000 | 8.2145 | 8.2145 | 1.3300e-003 | 0.0000 | 8.2478 |
| **Total** | **7.5300e-003** | **0.0650** | **0.0581** | **9.0000e-005** | **0.0000** | **4.0700e-003** | **4.0700e-003** | **0.0000** | **3.9500e-003** | **3.9500e-003** | **0.0000** | **8.2145** | **8.2145** | **1.3300e-003** | **0.0000** | **8.2478** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.2000e-004 | 7.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0788 | 0.0788 | 1.0000e-005 | 0.0000 | 0.0790 |
| Vendor | 1.6000e-004 | 4.0000e-003 | 1.1000e-003 | 1.0000e-005 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 6.0000e-005 | 3.0000e-005 | 9.0000e-005 | 0.0000 | 0.8030 | 0.8030 | 7.0000e-005 | 0.0000 | 0.8046 |
| Worker | 3.8000e-004 | 3.0000e-004 | 2.9200e-003 | 1.0000e-005 | 7.2000e-004 | 1.0000e-005 | 7.3000e-004 | 1.9000e-004 | 0.0000 | 2.0000e-004 | 0.0000 | 0.6946 | 0.6946 | 2.0000e-005 | 0.0000 | 0.6952 |
| **Total** | **5.5000e-004** | **4.6200e-003** | **4.0900e-003** | **2.0000e-005** | **9.4000e-004** | **4.0000e-005** | **9.8000e-004** | **2.5000e-004** | **3.0000e-005** | **3.0000e-004** | **0.0000** | **1.5764** | **1.5764** | **1.0000e-004** | **0.0000** | **1.5788** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.5000e-004 | 0.0000 | 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 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 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 | 6.0000e-005 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.0000e-004 | | | | | 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 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **2.6000e-004** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | 6.0000e-005 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.0000e-004 | | | | | 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 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **2.6000e-004** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Repair of 50 linear feet of concrete channel lining (Generic)

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 0.05 | 1000sqft | 0.00 | 50.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - project specifics

Trips and VMT - Applicant provided

Vehicle Trips - construction emissions only

Energy Use - construction emissions only

Water And Wastewater - construction emissions only

Solid Waste - construction emissions only

Construction Off-road Equipment Mitigation - All construction equipment Tier 4 interim

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| 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 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 0.00 | 10.00 |
| tblConstructionPhase | PhaseEndDate | 12/31/2017 | 1/12/2018 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.06 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 18.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,562.50 | 0.00 |

## 2.0 Emissions Summary

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 1.5827 | 13.0944 | 12.2448 | 0.0205 | 0.1514 | 0.8150 | 0.9664 | 0.0402 | 0.7908 | 0.8310 | 0.0000 | 1,988.6396 | 1,988.6396 | 0.3003 | 0.0000 | 1,996.1466 |
| **Maximum** | **1.5827** | **13.0944** | **12.2448** | **0.0205** | **0.1514** | **0.8150** | **0.9664** | **0.0402** | **0.7908** | **0.8310** | **0.0000** | **1,988.6396** | **1,988.6396** | **0.3003** | **0.0000** | **1,996.1466** |

### 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 | 0.4012 | 7.3291 | 13.0794 | 0.0205 | 0.1514 | 0.0282 | 0.1796 | 0.0402 | 0.0281 | 0.0683 | 0.0000 | 1,988.6396 | 1,988.6396 | 0.3003 | 0.0000 | 1,996.1466 |
| **Maximum** | **0.4012** | **7.3291** | **13.0794** | **0.0205** | **0.1514** | **0.0282** | **0.1796** | **0.0402** | **0.0281** | **0.0683** | **0.0000** | **1,988.6396** | **1,988.6396** | **0.3003** | **0.0000** | **1,996.1466** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **74.65** | **44.03** | **-6.82** | **0.00** | **0.00** | **96.54** | **81.41** | **0.00** | **96.44** | **91.78** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

### 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/12/2018 | 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: 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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 0 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

### Trips and VMT

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 6 | 18.00 | 0.00 | 2.00 | 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 - 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 | 1.5043 | 12.9756 | 11.6155 | 0.0187 | | 0.8137 | 0.8137 | | 0.7896 | 0.7896 | | 1,809.6441 | 1,809.6441 | 0.2932 | | 1,816.9743 |
| **Total** | **1.5043** | **12.9756** | **11.6155** | **0.0187** | **0.0000** | **0.8137** | **0.8137** | **0.0000** | **0.7896** | **0.7896** | | **1,809.6441** | **1,809.6441** | **0.2932** | | **1,816.9743** |

## 3.2 Grading - 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 | 1.8300e-003 | 0.0636 | 0.0131 | 1.6000e-004 | 3.4900e-003 | 2.5000e-004 | 3.7500e-003 | 9.6000e-004 | 2.4000e-004 | 1.2000e-003 | | 17.4951 | 17.4951 | 1.5400e-003 | | 17.5337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0766 | 0.0552 | 0.6162 | 1.6200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 161.5004 | 161.5004 | 5.5300e-003 | | 161.6386 |
| **Total** | **0.0785** | **0.1188** | **0.6293** | **1.7800e-003** | **0.1514** | **1.3100e-003** | **0.1527** | **0.0402** | **1.2200e-003** | **0.0414** | | **178.9955** | **178.9955** | **7.0700e-003** | | **179.1722** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.3228 | 7.2103 | 12.4501 | 0.0187 | | 0.0269 | 0.0269 | | 0.0269 | 0.0269 | 0.0000 | 1,809.6441 | 1,809.6441 | 0.2932 | | 1,816.9743 |
| **Total** | **0.3228** | **7.2103** | **12.4501** | **0.0187** | **0.0000** | **0.0269** | **0.0269** | **0.0000** | **0.0269** | **0.0269** | **0.0000** | **1,809.6441** | **1,809.6441** | **0.2932** | | **1,816.9743** |

### 3.2 Grading - 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 | 1.8300e-003 | 0.0636 | 0.0131 | 1.6000e-004 | 3.4900e-003 | 2.5000e-004 | 3.7500e-003 | 9.6000e-004 | 2.4000e-004 | 1.2000e-003 | | 17.4951 | 17.4951 | 1.5400e-003 | | 17.5337 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0766 | 0.0552 | 0.6162 | 1.6200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 161.5004 | 161.5004 | 5.5300e-003 | | 161.6386 |
| **Total** | **0.0785** | **0.1188** | **0.6293** | **1.7800e-003** | **0.1514** | **1.3100e-003** | **0.1527** | **0.0402** | **1.2200e-003** | **0.0414** | | **178.9955** | **178.9955** | **7.0700e-003** | | **179.1722** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| Unmitigated | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

**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 | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

## 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**

| 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

# Repair of 50 linear feet of concrete channel lining (Generic)

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 0.05 | 1000sqft | 0.00 | 50.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - project specifics

Trips and VMT - Concrete Repair Methods Table assumptions sheet

Vehicle Trips - construction emissions only

Energy Use - construction emissions only

Water And Wastewater - construction emissions only

Solid Waste - construction emissions only

Construction Off-road Equipment Mitigation - fugitive dust control

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Summer

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 0.00 | 10.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.06 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 18.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,562.50 | 0.00 |

## 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 | | | | | |
| 2018 | 1.6153 | 13.9016 | 12.4641 | 0.0222 | 0.1920 | 0.8221 | 1.0140 | 0.0519 | 0.7975 | 0.8494 | 0.0000 | 2,168.9077 | 2,168.9077 | 0.3149 | 0.0000 | 2,176.7796 |
| **Maximum** | **1.6153** | **13.9016** | **12.4641** | **0.0222** | **0.1920** | **0.8221** | **1.0140** | **0.0519** | **0.7975** | **0.8494** | **0.0000** | **2,168.9077** | **2,168.9077** | **0.3149** | **0.0000** | **2,176.7796** |

### 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 | 1.6153 | 13.9016 | 12.4641 | 0.0222 | 0.1920 | 0.8221 | 1.0140 | 0.0519 | 0.7975 | 0.8494 | 0.0000 | 2,168.9076 | 2,168.9076 | 0.3149 | 0.0000 | 2,176.7796 |
| **Maximum** | **1.6153** | **13.9016** | **12.4641** | **0.0222** | **0.1920** | **0.8221** | **1.0140** | **0.0519** | **0.7975** | **0.8494** | **0.0000** | **2,168.9076** | **2,168.9076** | **0.3149** | **0.0000** | **2,176.7796** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

## 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

### 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 3/1/2018 | 3/14/2018 | 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: 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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 0 | 0.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 97 | 0.37 |

### Trips and VMT

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 6 | 18.00 | 6.00 | 2.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.5059 | 12.9923 | 11.6254 | 0.0187 | | 0.8146 | 0.8146 | | 0.7904 | 0.7904 | | 1,810.9982 | 1,810.9982 | 0.2936 | | 1,818.3390 |
| **Total** | **1.5059** | **12.9923** | **11.6254** | **0.0187** | **0.0000** | **0.8146** | **0.8146** | **0.0000** | **0.7904** | **0.7904** | | **1,810.9982** | **1,810.9982** | **0.2936** | | **1,818.3390** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Summer

## 3.2 Grading - 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 | 1.8300e-003 | 0.0636 | 0.0131 | 1.6000e-004 | 3.4900e-003 | 2.5000e-004 | 3.7500e-003 | 9.6000e-004 | 2.4000e-004 | 1.2000e-003 | | 17.4951 | 17.4951 | 1.5400e-003 | | 17.5337 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.0766 | 0.0552 | 0.6162 | 1.6200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 161.5004 | 161.5004 | 5.5300e-003 | | 161.6386 |
| **Total** | **0.1094** | **0.9093** | **0.8386** | **3.4500e-003** | **0.1920** | **7.4900e-003** | **0.1995** | **0.0519** | **7.1300e-003** | **0.0590** | | **357.9094** | **357.9094** | **0.0213** | | **358.4407** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.5059 | 12.9923 | 11.6254 | 0.0187 | | 0.8146 | 0.8146 | | 0.7904 | 0.7904 | 0.0000 | 1,810.9982 | 1,810.9982 | 0.2936 | | 1,818.3390 |
| **Total** | **1.5059** | **12.9923** | **11.6254** | **0.0187** | **0.0000** | **0.8146** | **0.8146** | **0.0000** | **0.7904** | **0.7904** | **0.0000** | **1,810.9982** | **1,810.9982** | **0.2936** | | **1,818.3390** |

### 3.2 Grading - 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 | 1.8300e-003 | 0.0636 | 0.0131 | 1.6000e-004 | 3.4900e-003 | 2.5000e-004 | 3.7500e-003 | 9.6000e-004 | 2.4000e-004 | 1.2000e-003 | | 17.4951 | 17.4951 | 1.5400e-003 | | 17.5337 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.0766 | 0.0552 | 0.6162 | 1.6200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 161.5004 | 161.5004 | 5.5300e-003 | | 161.6386 |
| **Total** | **0.1094** | **0.9093** | **0.8386** | **3.4500e-003** | **0.1920** | **7.4900e-003** | **0.1995** | **0.0519** | **7.1300e-003** | **0.0590** | | **357.9094** | **357.9094** | **0.0213** | | **358.4407** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| Unmitigated | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

**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 | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

## 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**

| 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

# Repair of 50 linear feet of concrete channel lining (Generic)

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 0.05 | 1000sqft | 0.00 | 50.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - project specifics

Trips and VMT - Applicant provided

Vehicle Trips - construction emissions only

Energy Use - construction emissions only

Water And Wastewater - construction emissions only

Solid Waste - construction emissions only

Construction Off-road Equipment Mitigation - All construction equipment Tier 4 interim

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| 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 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 0.00 | 10.00 |
| tblConstructionPhase | PhaseEndDate | 12/31/2017 | 1/12/2018 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.06 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 18.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,562.50 | 0.00 |

## 2.0 Emissions Summary

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 1.5927 | 13.1019 | 12.2142 | 0.0204 | 0.1514 | 0.8150 | 0.9664 | 0.0402 | 0.7908 | 0.8310 | 0.0000 | 1,978.4678 | 1,978.4678 | 0.3001 | 0.0000 | 1,985.9694 |
| **Maximum** | **1.5927** | **13.1019** | **12.2142** | **0.0204** | **0.1514** | **0.8150** | **0.9664** | **0.0402** | **0.7908** | **0.8310** | **0.0000** | **1,978.4678** | **1,978.4678** | **0.3001** | **0.0000** | **1,985.9694** |

### 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 | 0.4112 | 7.3366 | 13.0487 | 0.0204 | 0.1514 | 0.0282 | 0.1796 | 0.0402 | 0.0282 | 0.0683 | 0.0000 | 1,978.4678 | 1,978.4678 | 0.3001 | 0.0000 | 1,985.9694 |
| **Maximum** | **0.4112** | **7.3366** | **13.0487** | **0.0204** | **0.1514** | **0.0282** | **0.1796** | **0.0402** | **0.0282** | **0.0683** | **0.0000** | **1,978.4678** | **1,978.4678** | **0.3001** | **0.0000** | **1,985.9694** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **74.18** | **44.00** | **-6.83** | **0.00** | **0.00** | **96.53** | **81.41** | **0.00** | **96.44** | **91.78** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

### 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/12/2018 | 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: 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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 0 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

### Trips and VMT

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 6 | 18.00 | 0.00 | 2.00 | 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 - 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 | 1.5043 | 12.9756 | 11.6155 | 0.0187 | | 0.8137 | 0.8137 | | 0.7896 | 0.7896 | | 1,809.6441 | 1,809.6441 | 0.2932 | | 1,816.9743 |
| **Total** | **1.5043** | **12.9756** | **11.6155** | **0.0187** | **0.0000** | **0.8137** | **0.8137** | **0.0000** | **0.7896** | **0.7896** | | **1,809.6441** | **1,809.6441** | **0.2932** | | **1,816.9743** |

## 3.2 Grading - 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 | 1.8800e-003 | 0.0643 | 0.0141 | 1.6000e-004 | 3.4900e-003 | 2.6000e-004 | 3.7500e-003 | 9.6000e-004 | 2.5000e-004 | 1.2000e-003 | | 17.2048 | 17.2048 | 1.6000e-003 | | 17.2448 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0866 | 0.0620 | 0.5845 | 1.5200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 151.6189 | 151.6189 | 5.2500e-003 | | 151.7503 |
| **Total** | **0.0884** | **0.1263** | **0.5986** | **1.6800e-003** | **0.1514** | **1.3200e-003** | **0.1527** | **0.0402** | **1.2300e-003** | **0.0414** | | **168.8237** | **168.8237** | **6.8500e-003** | | **168.9950** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.3228 | 7.2103 | 12.4501 | 0.0187 | | 0.0269 | 0.0269 | | 0.0269 | 0.0269 | 0.0000 | 1,809.6441 | 1,809.6441 | 0.2932 | | 1,816.9743 |
| **Total** | **0.3228** | **7.2103** | **12.4501** | **0.0187** | **0.0000** | **0.0269** | **0.0269** | **0.0000** | **0.0269** | **0.0269** | **0.0000** | **1,809.6441** | **1,809.6441** | **0.2932** | | **1,816.9743** |

### 3.2 Grading - 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 | 1.8800e-003 | 0.0643 | 0.0141 | 1.6000e-004 | 3.4900e-003 | 2.6000e-004 | 3.7500e-003 | 9.6000e-004 | 2.5000e-004 | 1.2000e-003 | | 17.2048 | 17.2048 | 1.6000e-003 | | 17.2448 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0866 | 0.0620 | 0.5845 | 1.5200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 151.6189 | 151.6189 | 5.2500e-003 | | 151.7503 |
| **Total** | **0.0884** | **0.1263** | **0.5986** | **1.6800e-003** | **0.1514** | **1.3200e-003** | **0.1527** | **0.0402** | **1.2300e-003** | **0.0414** | | **168.8237** | **168.8237** | **6.8500e-003** | | **168.9950** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| Unmitigated | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

**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 | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

## 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**

| 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

# Repair of 50 linear feet of concrete channel lining (Generic)

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 0.05 | 1000sqft | 0.00 | 50.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - project specifics

Trips and VMT - Concrete Repair Methods Table assumptions sheet

Vehicle Trips - construction emissions only

Energy Use - construction emissions only

Water And Wastewater - construction emissions only

Solid Waste - construction emissions only

Construction Off-road Equipment Mitigation - fugitive dust control

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, Winter

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 0.00 | 10.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.06 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 18.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,562.50 | 0.00 |

## 2.0 Emissions Summary

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 1.6266 | 13.9105 | 12.4556 | 0.0220 | 0.1920 | 0.8222 | 1.0141 | 0.0519 | 0.7976 | 0.8495 | 0.0000 | 2,154.2407 | 2,154.2407 | 0.3156 | 0.0000 | 2,162.1301 |
| **Maximum** | **1.6266** | **13.9105** | **12.4556** | **0.0220** | **0.1920** | **0.8222** | **1.0141** | **0.0519** | **0.7976** | **0.8495** | **0.0000** | **2,154.2407** | **2,154.2407** | **0.3156** | **0.0000** | **2,162.1301** |

### 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 | 1.6266 | 13.9105 | 12.4556 | 0.0220 | 0.1920 | 0.8222 | 1.0141 | 0.0519 | 0.7976 | 0.8495 | 0.0000 | 2,154.2407 | 2,154.2407 | 0.3156 | 0.0000 | 2,162.1301 |
| **Maximum** | **1.6266** | **13.9105** | **12.4556** | **0.0220** | **0.1920** | **0.8222** | **1.0141** | **0.0519** | **0.7976** | **0.8495** | **0.0000** | **2,154.2407** | **2,154.2407** | **0.3156** | **0.0000** | **2,162.1301** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

### 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 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 |
| 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 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 3/1/2018 | 3/14/2018 | 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: 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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 0 | 0.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 97 | 0.37 |

### Trips and VMT

Repair of 50 linear feet of concrete channel lining (Generic) - San Diego County, 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 | 6 | 18.00 | 6.00 | 2.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.5059 | 12.9923 | 11.6254 | 0.0187 | | 0.8146 | 0.8146 | | 0.7904 | 0.7904 | | 1,810.9982 | 1,810.9982 | 0.2936 | | 1,818.3390 |
| **Total** | **1.5059** | **12.9923** | **11.6254** | **0.0187** | **0.0000** | **0.8146** | **0.8146** | **0.0000** | **0.7904** | **0.7904** | | **1,810.9982** | **1,810.9982** | **0.2936** | | **1,818.3390** |

## 3.2 Grading - 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 | 1.8800e-003 | 0.0643 | 0.0141 | 1.6000e-004 | 3.4900e-003 | 2.6000e-004 | 3.7500e-003 | 9.6000e-004 | 2.5000e-004 | 1.2000e-003 | | 17.2048 | 17.2048 | 1.6000e-003 | | 17.2448 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.0866 | 0.0620 | 0.5845 | 1.5200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 151.6189 | 151.6189 | 5.2500e-003 | | 151.7503 |
| **Total** | **0.1207** | **0.9181** | **0.8302** | **3.3100e-003** | **0.1920** | **7.6100e-003** | **0.1996** | **0.0519** | **7.2400e-003** | **0.0591** | | **343.2425** | **343.2425** | **0.0219** | | **343.7911** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.5059 | 12.9923 | 11.6254 | 0.0187 | | 0.8146 | 0.8146 | | 0.7904 | 0.7904 | 0.0000 | 1,810.9982 | 1,810.9982 | 0.2936 | | 1,818.3390 |
| **Total** | **1.5059** | **12.9923** | **11.6254** | **0.0187** | **0.0000** | **0.8146** | **0.8146** | **0.0000** | **0.7904** | **0.7904** | **0.0000** | **1,810.9982** | **1,810.9982** | **0.2936** | | **1,818.3390** |

### 3.2 Grading - 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 | 1.8800e-003 | 0.0643 | 0.0141 | 1.6000e-004 | 3.4900e-003 | 2.6000e-004 | 3.7500e-003 | 9.6000e-004 | 2.5000e-004 | 1.2000e-003 | | 17.2048 | 17.2048 | 1.6000e-003 | | 17.2448 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.0866 | 0.0620 | 0.5845 | 1.5200e-003 | 0.1479 | 1.0600e-003 | 0.1489 | 0.0392 | 9.8000e-004 | 0.0402 | | 151.6189 | 151.6189 | 5.2500e-003 | | 151.7503 |
| **Total** | **0.1207** | **0.9181** | **0.8302** | **3.3100e-003** | **0.1920** | **7.6100e-003** | **0.1996** | **0.0519** | **7.2400e-003** | **0.0591** | | **343.2425** | **343.2425** | **0.0219** | | **343.7911** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| Unmitigated | 1.3900e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-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 | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

**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 | 3.2000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.0700e-003 | | | | | 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 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | | 1.0000e-005 |
| **Total** | **1.3900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | | **1.0000e-005** |

## 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**

| 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

# Via Encantadoras Segment 3 - mitigated

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.40 | 1000sqft | 0.03 | 1,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Via Encantadoras Segment 3 - mitigated - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Via Encantadoras Segment 3

Vehicle Trips - Construction Emissions Only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - mitigation

Fleet Mix -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| 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 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 80.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.74 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 16.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 323,750.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0735 | 0.5842 | 0.5492 | 1.0200e-003 | 0.0171 | 0.0339 | 0.0510 | 4.5900e-003 | 0.0329 | 0.0375 | 0.0000 | 90.3529 | 90.3529 | 0.0121 | 0.0000 | 90.6542 |
| **Maximum** | **0.0735** | **0.5842** | **0.5492** | **1.0200e-003** | **0.0171** | **0.0339** | **0.0510** | **4.5900e-003** | **0.0329** | **0.0375** | **0.0000** | **90.3529** | **90.3529** | **0.0121** | **0.0000** | **90.6542** |

### 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 | 0.0261 | 0.3531 | 0.5826 | 1.0200e-003 | 0.0171 | 2.3600e-003 | 0.0195 | 4.5900e-003 | 2.3400e-003 | 6.9300e-003 | 0.0000 | 90.3529 | 90.3529 | 0.0121 | 0.0000 | 90.6541 |
| **Maximum** | **0.0261** | **0.3531** | **0.5826** | **1.0200e-003** | **0.0171** | **2.3600e-003** | **0.0195** | **4.5900e-003** | **2.3400e-003** | **6.9300e-003** | **0.0000** | **90.3529** | **90.3529** | **0.0121** | **0.0000** | **90.6541** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **64.41** | **39.55** | **-6.08** | **0.00** | **0.00** | **93.03** | **61.80** | **0.00** | **92.88** | **81.50** | **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 | 1-1-2018 | 3-31-2018 | 0.5291 | 0.3054 |
| 2 | 4-1-2018 | 6-30-2018 | 0.1289 | 0.0743 |
| | | Highest | 0.5291 | 0.3054 |

## 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 | 7.0900e-003 | 0.0000 | 1.0000e-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 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

## 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 | 7.0900e-003 | 0.0000 | 1.0000e-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 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 4/22/2018 | 5 | 80 | |

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 48.00 | 6.00 | 16.00 | 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 - 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 | 0.0639 | 0.5430 | 0.4776 | 7.9000e-004 | | 0.0335 | 0.0335 | | 0.0325 | 0.0325 | 0.0000 | 68.4806 | 68.4806 | 0.0110 | 0.0000 | 68.7544 |
| **Total** | **0.0639** | **0.5430** | **0.4776** | **7.9000e-004** | **0.0000** | **0.0335** | **0.0335** | **0.0000** | **0.0325** | **0.0325** | **0.0000** | **68.4806** | **68.4806** | **0.0110** | **0.0000** | **68.7544** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 7.0000e-005 | 2.6000e-003 | 5.4000e-004 | 1.0000e-005 | 1.4000e-004 | 1.0000e-005 | 1.5000e-004 | 4.0000e-005 | 1.0000e-005 | 5.0000e-005 | 0.0000 | 0.6304 | 0.6304 | 6.0000e-005 | 0.0000 | 0.6319 |
| Vendor | 1.2600e-003 | 0.0320 | 8.8100e-003 | 7.0000e-005 | 1.5900e-003 | 2.5000e-004 | 1.8400e-003 | 4.6000e-004 | 2.4000e-004 | 7.0000e-004 | 0.0000 | 6.4238 | 6.4238 | 5.3000e-004 | 0.0000 | 6.4371 |
| Worker | 8.2100e-003 | 6.5000e-003 | 0.0623 | 1.6000e-004 | 0.0154 | 1.1000e-004 | 0.0155 | 4.0900e-003 | 1.0000e-004 | 4.2000e-003 | 0.0000 | 14.8181 | 14.8181 | 5.1000e-004 | 0.0000 | 14.8309 |
| **Total** | **9.5400e-003** | **0.0411** | **0.0717** | **2.4000e-004** | **0.0171** | **3.7000e-004** | **0.0175** | **4.5900e-003** | **3.5000e-004** | **4.9500e-003** | **0.0000** | **21.8723** | **21.8723** | **1.1000e-003** | **0.0000** | **21.8998** |

## 3.2 Grading - 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 | 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 | 0.0166 | 0.3120 | 0.5110 | 7.9000e-004 | | 1.9800e-003 | 1.9800e-003 | | 1.9800e-003 | 1.9800e-003 | 0.0000 | 68.4805 | 68.4805 | 0.0110 | 0.0000 | 68.7543 |
| **Total** | **0.0166** | **0.3120** | **0.5110** | **7.9000e-004** | **0.0000** | **1.9800e-003** | **1.9800e-003** | **0.0000** | **1.9800e-003** | **1.9800e-003** | **0.0000** | **68.4805** | **68.4805** | **0.0110** | **0.0000** | **68.7543** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 7.0000e-005 | 2.6000e-003 | 5.4000e-004 | 1.0000e-005 | 1.4000e-004 | 1.0000e-005 | 1.5000e-004 | 4.0000e-005 | 1.0000e-005 | 5.0000e-005 | 0.0000 | 0.6304 | 0.6304 | 6.0000e-005 | 0.0000 | 0.6319 |
| Vendor | 1.2600e-003 | 0.0320 | 8.8100e-003 | 7.0000e-005 | 1.5900e-003 | 2.5000e-004 | 1.8400e-003 | 4.6000e-004 | 2.4000e-004 | 7.0000e-004 | 0.0000 | 6.4238 | 6.4238 | 5.3000e-004 | 0.0000 | 6.4371 |
| Worker | 8.2100e-003 | 6.5000e-003 | 0.0623 | 1.6000e-004 | 0.0154 | 1.1000e-004 | 0.0155 | 4.0900e-003 | 1.0000e-004 | 4.2000e-003 | 0.0000 | 14.8181 | 14.8181 | 5.1000e-004 | 0.0000 | 14.8309 |
| **Total** | **9.5400e-003** | **0.0411** | **0.0717** | **2.4000e-004** | **0.0171** | **3.7000e-004** | **0.0175** | **4.5900e-003** | **3.5000e-004** | **4.9500e-003** | **0.0000** | **21.8723** | **21.8723** | **1.1000e-003** | **0.0000** | **21.8998** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 7.0900e-003 | 0.0000 | 1.0000e-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 | 7.0900e-003 | 0.0000 | 1.0000e-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 | 1.6200e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 5.4700e-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 | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.0000 | 3.0000e-005 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-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

**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 | 1.6200e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 5.4700e-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 | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.0000 | 3.0000e-005 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-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** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Via Encantadoras Segment 3

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.40 | 1000sqft | 0.03 | 1,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Via Encantadoras Segment 3

Vehicle Trips - Construction Emissions Only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - Unmitigated run, dust control measures pdf.

Fleet Mix -

Via Encantadoras Segment 3 - San Diego County, Annual

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.74 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 16.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 323,750.00 | 0.00 |

# 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 | | | | | |
| 2018 | 1.9100e-003 | 0.0171 | 0.0143 | 3.0000e-005 | 5.6000e-004 | 8.6000e-004 | 1.4200e-003 | 1.5000e-004 | 8.3000e-004 | 9.8000e-004 | 0.0000 | 2.8735 | 2.8735 | 3.6000e-004 | 0.0000 | 2.8824 |
| **Maximum** | **1.9100e-003** | **0.0171** | **0.0143** | **3.0000e-005** | **5.6000e-004** | **8.6000e-004** | **1.4200e-003** | **1.5000e-004** | **8.3000e-004** | **9.8000e-004** | **0.0000** | **2.8735** | **2.8735** | **3.6000e-004** | **0.0000** | **2.8824** |

### 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 | 1.9100e-003 | 0.0171 | 0.0143 | 3.0000e-005 | 5.6000e-004 | 8.6000e-004 | 1.4200e-003 | 1.5000e-004 | 8.3000e-004 | 9.8000e-004 | 0.0000 | 2.8735 | 2.8735 | 3.6000e-004 | 0.0000 | 2.8824 |
| **Maximum** | **1.9100e-003** | **0.0171** | **0.0143** | **3.0000e-005** | **5.6000e-004** | **8.6000e-004** | **1.4200e-003** | **1.5000e-004** | **8.3000e-004** | **9.8000e-004** | **0.0000** | **2.8735** | **2.8735** | **3.6000e-004** | **0.0000** | **2.8824** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| **1** | **1-1-2018** | **3-31-2018** | 0.0136 | 0.0136 |
| | | **Highest** | 0.0136 | 0.0136 |

## 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 | 7.0900e-003 | 0.0000 | 1.0000e-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 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

## 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 | 7.0900e-003 | 0.0000 | 1.0000e-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 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/2/2018 | 5 | 2 | |

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 48.00 | 6.00 | 16.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.6000e-003 | 0.0136 | 0.0119 | 2.0000e-005 | | 8.4000e-004 | 8.4000e-004 | | 8.1000e-004 | 8.1000e-004 | 0.0000 | 1.7120 | 1.7120 | 2.7000e-004 | 0.0000 | 1.7189 |
| **Total** | **1.6000e-003** | **0.0136** | **0.0119** | **2.0000e-005** | **0.0000** | **8.4000e-004** | **8.4000e-004** | **0.0000** | **8.1000e-004** | **8.1000e-004** | **0.0000** | **1.7120** | **1.7120** | **2.7000e-004** | **0.0000** | **1.7189** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 7.0000e-005 | 2.6000e-003 | 5.4000e-004 | 1.0000e-005 | 1.4000e-004 | 1.0000e-005 | 1.5000e-004 | 4.0000e-005 | 1.0000e-005 | 5.0000e-005 | 0.0000 | 0.6304 | 0.6304 | 6.0000e-005 | 0.0000 | 0.6319 |
| Vendor | 3.0000e-005 | 8.0000e-004 | 2.2000e-004 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 5.0000e-005 | 1.0000e-005 | 1.0000e-005 | 2.0000e-005 | 0.0000 | 0.1606 | 0.1606 | 1.0000e-005 | 0.0000 | 0.1609 |
| Worker | 2.1000e-004 | 1.6000e-004 | 1.5600e-003 | 0.0000 | 3.8000e-004 | 0.0000 | 3.9000e-004 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3705 | 0.3705 | 1.0000e-005 | 0.0000 | 0.3708 |
| **Total** | **3.1000e-004** | **3.5600e-003** | **2.3200e-003** | **1.0000e-005** | **5.6000e-004** | **2.0000e-005** | **5.9000e-004** | **1.5000e-004** | **2.0000e-005** | **1.7000e-004** | **0.0000** | **1.1615** | **1.1615** | **8.0000e-005** | **0.0000** | **1.1636** |

## 3.2 Grading - 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 | 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 | 1.6000e-003 | 0.0136 | 0.0119 | 2.0000e-005 | | 8.4000e-004 | 8.4000e-004 | | 8.1000e-004 | 8.1000e-004 | 0.0000 | 1.7120 | 1.7120 | 2.7000e-004 | 0.0000 | 1.7189 |
| **Total** | **1.6000e-003** | **0.0136** | **0.0119** | **2.0000e-005** | **0.0000** | **8.4000e-004** | **8.4000e-004** | **0.0000** | **8.1000e-004** | **8.1000e-004** | **0.0000** | **1.7120** | **1.7120** | **2.7000e-004** | **0.0000** | **1.7189** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 7.0000e-005 | 2.6000e-003 | 5.4000e-004 | 1.0000e-005 | 1.4000e-004 | 1.0000e-005 | 1.5000e-004 | 4.0000e-005 | 1.0000e-005 | 5.0000e-005 | 0.0000 | 0.6304 | 0.6304 | 6.0000e-005 | 0.0000 | 0.6319 |
| Vendor | 3.0000e-005 | 8.0000e-004 | 2.2000e-004 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 5.0000e-005 | 1.0000e-005 | 1.0000e-005 | 2.0000e-005 | 0.0000 | 0.1606 | 0.1606 | 1.0000e-005 | 0.0000 | 0.1609 |
| Worker | 2.1000e-004 | 1.6000e-004 | 1.5600e-003 | 0.0000 | 3.8000e-004 | 0.0000 | 3.9000e-004 | 1.0000e-004 | 0.0000 | 1.0000e-004 | 0.0000 | 0.3705 | 0.3705 | 1.0000e-005 | 0.0000 | 0.3708 |
| **Total** | **3.1000e-004** | **3.5600e-003** | **2.3200e-003** | **1.0000e-005** | **5.6000e-004** | **2.0000e-005** | **5.9000e-004** | **1.5000e-004** | **2.0000e-005** | **1.7000e-004** | **0.0000** | **1.1615** | **1.1615** | **8.0000e-005** | **0.0000** | **1.1636** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 7.0900e-003 | 0.0000 | 1.0000e-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 | 7.0900e-003 | 0.0000 | 1.0000e-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 | 1.6200e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 5.4700e-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 | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.0000 | 3.0000e-005 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-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

**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 | 1.6200e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 5.4700e-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 | 3.0000e-005 | 3.0000e-005 | 0.0000 | 0.0000 | 3.0000e-005 |
| **Total** | **7.0900e-003** | **0.0000** | **1.0000e-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** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Via Encantadoras Segment 3 - mitigated

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.40 | 1000sqft | 0.03 | 1,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Via Encantadoras Segment 3 - mitigated - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Via Encantadoras Segment 3

Vehicle Trips - Construction Emissions Only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - mitigation

Fleet Mix -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| 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 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 80.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.74 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 16.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 323,750.00 | 0.00 |

## 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 | | | | | |
| 2018 | 1.8349 | 14.5767 | 13.8046 | 0.0258 | 0.4384 | 0.8465 | 1.2849 | 0.1172 | 0.8218 | 0.9391 | 0.0000 | 2,514.2504 | 2,514.2504 | 0.3323 | 0.0000 | 2,522.5571 |
| **Maximum** | **1.8349** | **14.5767** | **13.8046** | **0.0258** | **0.4384** | **0.8465** | **1.2849** | **0.1172** | **0.8218** | **0.9391** | **0.0000** | **2,514.2504** | **2,514.2504** | **0.3323** | **0.0000** | **2,522.5571** |

### 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 | 0.6520 | 8.8006 | 14.6394 | 0.0258 | 0.4384 | 0.0589 | 0.4973 | 0.1172 | 0.0584 | 0.1756 | 0.0000 | 2,514.2504 | 2,514.2504 | 0.3323 | 0.0000 | 2,522.5571 |
| **Maximum** | **0.6520** | **8.8006** | **14.6394** | **0.0258** | **0.4384** | **0.0589** | **0.4973** | **0.1172** | **0.0584** | **0.1756** | **0.0000** | **2,514.2504** | **2,514.2504** | **0.3323** | **0.0000** | **2,522.5571** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **64.47** | **39.63** | **-6.05** | **0.00** | **0.00** | **93.05** | **61.30** | **0.00** | **92.90** | **81.30** | **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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

### 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 4/22/2018 | 5 | 80 | |

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 48.00 | 6.00 | 16.00 | 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 - 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 | 1.5978 | 13.5754 | 11.9389 | 0.0197 | | 0.8372 | 0.8372 | | 0.8130 | 0.8130 | | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **1.5978** | **13.5754** | **11.9389** | **0.0197** | **0.0000** | **0.8372** | **0.8372** | **0.0000** | **0.8130** | **0.8130** | | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

## 3.2 Grading - 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 | 1.8300e-003 | 0.0636 | 0.0131 | 1.6000e-004 | 3.4900e-003 | 2.5000e-004 | 3.7500e-003 | 9.6000e-004 | 2.4000e-004 | 1.2000e-003 | | 17.4951 | 17.4951 | 1.5400e-003 | | 17.5337 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2371** | **1.0013** | **1.8656** | **6.1600e-003** | **0.4384** | **9.2700e-003** | **0.4477** | **0.1172** | **8.7700e-003** | **0.1260** | | **627.0768** | **627.0768** | **0.0305** | | **627.8383** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.4149 | 7.7994 | 12.7738 | 0.0197 | | 0.0496 | 0.0496 | | 0.0496 | 0.0496 | 0.0000 | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **0.4149** | **7.7994** | **12.7738** | **0.0197** | **0.0000** | **0.0496** | **0.0496** | **0.0000** | **0.0496** | **0.0496** | **0.0000** | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

### 3.2 Grading - 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 | 1.8300e-003 | 0.0636 | 0.0131 | 1.6000e-004 | 3.4900e-003 | 2.5000e-004 | 3.7500e-003 | 9.6000e-004 | 2.4000e-004 | 1.2000e-003 | | 17.4951 | 17.4951 | 1.5400e-003 | | 17.5337 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2371** | **1.0013** | **1.8656** | **6.1600e-003** | **0.4384** | **9.2700e-003** | **0.4477** | **0.1172** | **8.7700e-003** | **0.1260** | | **627.0768** | **627.0768** | **0.0305** | | **627.8383** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| Unmitigated | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

**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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

## 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**

| 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

# Via Encantadoras Segment 3

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.40 | 1000sqft | 0.03 | 1,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Via Encantadoras Segment 3

Vehicle Trips - Construction Emissions Only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - Unmitigated run, dust control measures pdf.

Fleet Mix -

Via Encantadoras Segment 3 - San Diego County, Summer

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.74 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 16.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 323,750.00 | 0.00 |

# 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 | | | | | |
| 2018 | 1.9063 | 17.0577 | 14.3162 | 0.0321 | 0.5747 | 0.8563 | 1.4310 | 0.1546 | 0.8311 | 0.9857 | 0.0000 | 3,196.5590 | 3,196.5590 | 0.3924 | 0.0000 | 3,206.3692 |
| **Maximum** | **1.9063** | **17.0577** | **14.3162** | **0.0321** | **0.5747** | **0.8563** | **1.4310** | **0.1546** | **0.8311** | **0.9857** | **0.0000** | **3,196.5590** | **3,196.5590** | **0.3924** | **0.0000** | **3,206.3692** |

### 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 | 1.9063 | 17.0577 | 14.3162 | 0.0321 | 0.5747 | 0.8563 | 1.4310 | 0.1546 | 0.8311 | 0.9857 | 0.0000 | 3,196.5590 | 3,196.5590 | 0.3924 | 0.0000 | 3,206.3692 |
| **Maximum** | **1.9063** | **17.0577** | **14.3162** | **0.0321** | **0.5747** | **0.8563** | **1.4310** | **0.1546** | **0.8311** | **0.9857** | **0.0000** | **3,196.5590** | **3,196.5590** | **0.3924** | **0.0000** | **3,206.3692** |

Via Encantadoras Segment 3 - San Diego County, 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 | N20 | 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 |

## 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

### 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/2/2018 | 5 | 2 | |

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 48.00 | 6.00 | 16.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.5978 | 13.5754 | 11.9389 | 0.0197 | | 0.8372 | 0.8372 | | 0.8130 | 0.8130 | | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **1.5978** | **13.5754** | **11.9389** | **0.0197** | **0.0000** | **0.8372** | **0.8372** | **0.0000** | **0.8130** | **0.8130** | | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

## 3.2 Grading - 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 | 0.0732 | 2.5446 | 0.5248 | 6.4300e-003 | 0.1398 | 0.0100 | 0.1498 | 0.0383 | 9.5800e-003 | 0.0479 | | 699.8036 | 699.8036 | 0.0617 | | 701.3458 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.3085** | **3.4823** | **2.3773** | **0.0124** | **0.5747** | **0.0190** | **0.5938** | **0.1546** | **0.0181** | **0.1727** | | **1,309.3854** | **1,309.3854** | **0.0906** | | **1,311.6505** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.5978 | 13.5754 | 11.9389 | 0.0197 | | 0.8372 | 0.8372 | | 0.8130 | 0.8130 | 0.0000 | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **1.5978** | **13.5754** | **11.9389** | **0.0197** | **0.0000** | **0.8372** | **0.8372** | **0.0000** | **0.8130** | **0.8130** | **0.0000** | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

### 3.2 Grading - 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 | 0.0732 | 2.5446 | 0.5248 | 6.4300e-003 | 0.1398 | 0.0100 | 0.1498 | 0.0383 | 9.5800e-003 | 0.0479 | | 699.8036 | 699.8036 | 0.0617 | | 701.3458 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.3085** | **3.4823** | **2.3773** | **0.0124** | **0.5747** | **0.0190** | **0.5938** | **0.1546** | **0.0181** | **0.1727** | | **1,309.3854** | **1,309.3854** | **0.0906** | | **1,311.6505** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| Unmitigated | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

**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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

## 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**

| 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

# Via Encantadoras Segment 3 - mitigated

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.40 | 1000sqft | 0.03 | 1,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Via Encantadoras Segment 3 - mitigated - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Via Encantadoras Segment 3

Vehicle Trips - Construction Emissions Only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - mitigation

Fleet Mix -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| 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 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 80.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.74 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 16.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 323,750.00 | 0.00 |

## 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 | | | | | |
| 2018 | 1.8628 | 14.5968 | 13.7434 | 0.0255 | 0.4384 | 0.8466 | 1.2850 | 0.1172 | 0.8219 | 0.9392 | 0.0000 | 2,483.1142 | 2,483.1142 | 0.3325 | 0.0000 | 2,491.4270 |
| **Maximum** | **1.8628** | **14.5968** | **13.7434** | **0.0255** | **0.4384** | **0.8466** | **1.2850** | **0.1172** | **0.8219** | **0.9392** | **0.0000** | **2,483.1142** | **2,483.1142** | **0.3325** | **0.0000** | **2,491.4270** |

### 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 | 0.6798 | 8.8208 | 14.5782 | 0.0255 | 0.4384 | 0.0590 | 0.4974 | 0.1172 | 0.0585 | 0.1757 | 0.0000 | 2,483.1142 | 2,483.1142 | 0.3325 | 0.0000 | 2,491.4270 |
| **Maximum** | **0.6798** | **8.8208** | **14.5782** | **0.0255** | **0.4384** | **0.0590** | **0.4974** | **0.1172** | **0.0585** | **0.1757** | **0.0000** | **2,483.1142** | **2,483.1142** | **0.3325** | **0.0000** | **2,491.4270** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **63.50** | **39.57** | **-6.07** | **0.00** | **0.00** | **93.03** | **61.29** | **0.00** | **92.89** | **81.29** | **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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

### 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 4/22/2018 | 5 | 80 | |

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 48.00 | 6.00 | 16.00 | 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 - 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 | 1.5978 | 13.5754 | 11.9389 | 0.0197 | | 0.8372 | 0.8372 | | 0.8130 | 0.8130 | | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **1.5978** | **13.5754** | **11.9389** | **0.0197** | **0.0000** | **0.8372** | **0.8372** | **0.0000** | **0.8130** | **0.8130** | | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

## 3.2 Grading - 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 | 1.8800e-003 | 0.0643 | 0.0141 | 1.6000e-004 | 3.4900e-003 | 2.6000e-004 | 3.7500e-003 | 9.6000e-004 | 2.5000e-004 | 1.2000e-003 | | 17.2048 | 17.2048 | 1.6000e-003 | | 17.2448 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2649** | **1.0214** | **1.8044** | **5.8500e-003** | **0.4384** | **9.3900e-003** | **0.4478** | **0.1172** | **8.8800e-003** | **0.1261** | | **595.9406** | **595.9406** | **0.0307** | | **596.7082** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.4149 | 7.7994 | 12.7738 | 0.0197 | | 0.0496 | 0.0496 | | 0.0496 | 0.0496 | 0.0000 | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **0.4149** | **7.7994** | **12.7738** | **0.0197** | **0.0000** | **0.0496** | **0.0496** | **0.0000** | **0.0496** | **0.0496** | **0.0000** | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

### 3.2 Grading - 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 | 1.8800e-003 | 0.0643 | 0.0141 | 1.6000e-004 | 3.4900e-003 | 2.6000e-004 | 3.7500e-003 | 9.6000e-004 | 2.5000e-004 | 1.2000e-003 | | 17.2048 | 17.2048 | 1.6000e-003 | | 17.2448 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2649** | **1.0214** | **1.8044** | **5.8500e-003** | **0.4384** | **9.3900e-003** | **0.4478** | **0.1172** | **8.8800e-003** | **0.1261** | | **595.9406** | **595.9406** | **0.0307** | | **596.7082** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| Unmitigated | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

**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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

## 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**

| 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

# Via Encantadoras Segment 3

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.40 | 1000sqft | 0.03 | 1,400.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics -

Land Use -

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Via Encantadoras Segment 3

Vehicle Trips - Construction Emissions Only

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - Unmitigated run, dust control measures pdf.

Fleet Mix -

Via Encantadoras Segment 3 - San Diego County, Winter

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 5.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.74 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 16.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 323,750.00 | 0.00 |

# 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 | | | | | |
| 2018 | 1.9362 | 17.1043 | 14.2935 | 0.0317 | 0.5747 | 0.8566 | 1.4313 | 0.1546 | 0.8315 | 0.9861 | 0.0000 | 3,154.1005 | 3,154.1005 | 0.3949 | 0.0000 | 3,163.9732 |
| **Maximum** | **1.9362** | **17.1043** | **14.2935** | **0.0317** | **0.5747** | **0.8566** | **1.4313** | **0.1546** | **0.8315** | **0.9861** | **0.0000** | **3,154.1005** | **3,154.1005** | **0.3949** | **0.0000** | **3,163.9732** |

### 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 | 1.9362 | 17.1043 | 14.2935 | 0.0317 | 0.5747 | 0.8566 | 1.4313 | 0.1546 | 0.8315 | 0.9861 | 0.0000 | 3,154.1005 | 3,154.1005 | 0.3949 | 0.0000 | 3,163.9732 |
| **Maximum** | **1.9362** | **17.1043** | **14.2935** | **0.0317** | **0.5747** | **0.8566** | **1.4313** | **0.1546** | **0.8315** | **0.9861** | **0.0000** | **3,154.1005** | **3,154.1005** | **0.3949** | **0.0000** | **3,163.9732** |

Via Encantadoras Segment 3 - San Diego County, 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 | N20 | 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 |

## 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

### 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | **0.0000** | **3.3000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/2/2018 | 5 | 2 | |

**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 |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 1 | 5.00 | 81 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Pumps | 2 | 5.00 | 84 | 0.74 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 1 | 5.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 48.00 | 6.00 | 16.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.5978 | 13.5754 | 11.9389 | 0.0197 | | 0.8372 | 0.8372 | | 0.8130 | 0.8130 | | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **1.5978** | **13.5754** | **11.9389** | **0.0197** | **0.0000** | **0.8372** | **0.8372** | **0.0000** | **0.8130** | **0.8130** | | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

## 3.2 Grading - 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 | 0.0753 | 2.5718 | 0.5643 | 6.3300e-003 | 0.1398 | 0.0103 | 0.1500 | 0.0383 | 9.8000e-003 | 0.0481 | | 688.1910 | 688.1910 | 0.0640 | | 689.7910 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.3384** | **3.5289** | **2.3546** | **0.0120** | **0.5747** | **0.0194** | **0.5941** | **0.1546** | **0.0184** | **0.1730** | | **1,266.9269** | **1,266.9269** | **0.0931** | | **1,269.2545** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.5978 | 13.5754 | 11.9389 | 0.0197 | | 0.8372 | 0.8372 | | 0.8130 | 0.8130 | 0.0000 | 1,887.1736 | 1,887.1736 | 0.3018 | | 1,894.7188 |
| **Total** | **1.5978** | **13.5754** | **11.9389** | **0.0197** | **0.0000** | **0.8372** | **0.8372** | **0.0000** | **0.8130** | **0.8130** | **0.0000** | **1,887.1736** | **1,887.1736** | **0.3018** | | **1,894.7188** |

### 3.2 Grading - 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 | 0.0753 | 2.5718 | 0.5643 | 6.3300e-003 | 0.1398 | 0.0103 | 0.1500 | 0.0383 | 9.8000e-003 | 0.0481 | | 688.1910 | 688.1910 | 0.0640 | | 689.7910 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.3384** | **3.5289** | **2.3546** | **0.0120** | **0.5747** | **0.0194** | **0.5941** | **0.1546** | **0.0184** | **0.1730** | | **1,266.9269** | **1,266.9269** | **0.0931** | | **1,269.2545** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| Unmitigated | 0.0389 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

**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 | 8.8900e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0300 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 3.1000e-004 | 3.1000e-004 | 0.0000 | | 3.3000e-004 |
| **Total** | **0.0389** | **0.0000** | **1.4000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **3.1000e-004** | **3.1000e-004** | **0.0000** | | **3.3000e-004** |

## 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**

| 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

# Tijuana River Valley Channel Maintenance Project (City of San Diego) Mitigated

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 187.74 | 1000sqft | 4.31 | 187,744.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - See 1.0 Project Characteristics. Mitigated

Land Use - See 1.1 Land Usage.

Construction Phase - See 3.0 Construction Detail. Assumed a 20-week grading phase to represent total project construction. A separate phase was utilized to represent part time use of pumps.

Off-road Equipment -

Off-road Equipment - Grading - See 3.0 Construction Detail.

Off-road Equipment - Pump Use - See 3.0 Construction Detail.

Trips and VMT - See 3.0 Construction Detail. Assumed 12 CY (MHDT) haul trucks. Haul truck trip length represents distance to nearby landfill. All vehicles and trucks associated with the Pump Use phase included in the Grading phase.

On-road Fugitive Dust - Assumed 99% paved for worker, vendor trucks, and haul trucks.

Grading - Export of 30,000 CY. 4.31 acres graded.

Vehicle Trips - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Woodstoves - No operation.

Consumer Products - No operation.

Area Coating - No operation.

Landscape Equipment - No operation.

Energy Use - No operation.

Water And Wastewater - No operation.

Solid Waste - No operation.

Construction Off-road Equipment Mitigation - Water Exposed Area, Frequency: 2 times per day. Unpaved Road Mitigation, limit vehicle speed to 15 mph. Mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 93872 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 281616 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |

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| | | | |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 8.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 25.00 |
| tblConstructionPhase | PhaseEndDate | 11/17/2017 | 3/27/2018 |
| tblConstructionPhase | PhaseEndDate | 11/7/2017 | 12/5/2017 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 75.00 | 4.31 |
| tblGrading | MaterialExported | 0.00 | 30,000.00 |
| tblLandUse | LandUseSquareFeet | 187,740.00 | 187,744.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 99.00 |

| | | | |
|---|---|---|---|
| tblOnRoadDust | WorkerPercentPave | 100.00 | 99.00 |
| tblSolidWaste | SolidWasteGenerationRate | 232.80 | 0.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 28.00 |
| tblTripsAndVMT | HaulingTripNumber | 3,750.00 | 5,000.00 |
| tblTripsAndVMT | HaulingVehicleClass | HHDT | MHDT |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 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 | 43,414,875.00 | 0.00 |

## 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 | | | | | |
| 2017 | 0.1053 | 1.1268 | 0.6237 | 1.7400e-003 | 1.0622 | 0.0513 | 1.1135 | 0.1161 | 0.0489 | 0.1649 | 0.0000 | 159.9149 | 159.9149 | 0.0210 | 0.0000 | 160.4400 |
| 2018 | 0.1024 | 1.2564 | 0.6238 | 2.2200e-003 | 1.1228 | 0.0465 | 1.1693 | 0.1243 | 0.0431 | 0.1674 | 0.0000 | 207.0504 | 207.0504 | 0.0294 | 0.0000 | 207.7859 |
| **Maximum** | **0.1053** | **1.2564** | **0.6238** | **2.2200e-003** | **1.1228** | **0.0513** | **1.1693** | **0.1243** | **0.0489** | **0.1674** | **0.0000** | **207.0504** | **207.0504** | **0.0294** | **0.0000** | **207.7859** |

### 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 | | | | | |
| 2017 | 0.0423 | 0.6062 | 0.7147 | 1.7400e-003 | 0.6720 | 0.0110 | 0.6831 | 0.0770 | 0.0106 | 0.0876 | 0.0000 | 159.9148 | 159.9148 | 0.0210 | 0.0000 | 160.4399 |
| 2018 | 0.0521 | 0.7295 | 0.7655 | 2.2200e-003 | 0.7124 | 0.0148 | 0.7271 | 0.0832 | 0.0141 | 0.0973 | 0.0000 | 207.0503 | 207.0503 | 0.0294 | 0.0000 | 207.7858 |
| **Maximum** | **0.0521** | **0.7295** | **0.7655** | **2.2200e-003** | **0.7124** | **0.0148** | **0.7271** | **0.0832** | **0.0141** | **0.0973** | **0.0000** | **207.0503** | **207.0503** | **0.0294** | **0.0000** | **207.7858** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **54.55** | **43.95** | **-18.64** | **0.00** | **36.64** | **73.63** | **38.22** | **33.37** | **73.17** | **44.38** | **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 | 11-1-2017 | 1-31-2018 | 1.7305 | 0.9342 |
| 2 | 2-1-2018 | 4-30-2018 | 0.8603 | 0.4946 |
| | | Highest | 1.7305 | 0.9342 |

## 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 | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-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 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

## 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 | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-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 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 12/5/2017 | 5 | 25 | |
| 2 | Grading | Grading | 11/8/2017 | 3/27/2018 | 5 | 100 | |

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

**Acres of Grading (Grading Phase): 4.31**

**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 |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 6.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 6.00 | 158 | 0.38 |
| Grading | Graders | 0 | 0.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 6.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 1 | 6.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Trenchers | 1 | 2.00 | 78 | 0.50 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 24.00 | 10.00 | 5,000.00 | 10.80 | 7.30 | 28.00 | LD_Mix | HDT_Mix | MHDT |
| Pump Use | 6 | 0.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0337 | 0.2549 | 0.2155 | 3.7000e-004 | | 0.0177 | 0.0177 | | 0.0177 | 0.0177 | 0.0000 | 31.7929 | 31.7929 | 2.7400e-003 | 0.0000 | 31.8615 |
| **Total** | **0.0337** | **0.2549** | **0.2155** | **3.7000e-004** | **0.0000** | **0.0177** | **0.0177** | **0.0000** | **0.0177** | **0.0177** | **0.0000** | **31.7929** | **31.7929** | **2.7400e-003** | **0.0000** | **31.8615** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

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

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 6.7800e-003 | 0.1320 | 0.2282 | 3.7000e-004 | | 4.9000e-004 | 4.9000e-004 | | 4.9000e-004 | 4.9000e-004 | 0.0000 | 31.7929 | 31.7929 | 2.7400e-003 | 0.0000 | 31.8614 |
| **Total** | **6.7800e-003** | **0.1320** | **0.2282** | **3.7000e-004** | **0.0000** | **4.9000e-004** | **4.9000e-004** | **0.0000** | **4.9000e-004** | **4.9000e-004** | **0.0000** | **31.7929** | **31.7929** | **2.7400e-003** | **0.0000** | **31.8614** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

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

## 3.3 Grading - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 4.3900e-003 | 0.0000 | 4.3900e-003 | 5.7000e-004 | 0.0000 | 5.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0490 | 0.5882 | 0.2886 | 5.8000e-004 | | 0.0267 | 0.0267 | | 0.0246 | 0.0246 | 0.0000 | 53.4801 | 53.4801 | 0.0164 | 0.0000 | 53.8897 |
| **Total** | **0.0490** | **0.5882** | **0.2886** | **5.8000e-004** | **4.3900e-003** | **0.0267** | **0.0311** | **5.7000e-004** | **0.0246** | **0.0252** | **0.0000** | **53.4801** | **53.4801** | **0.0164** | **0.0000** | **53.8897** |

## 3.3 Grading - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0194 | 0.2547 | 0.0951 | 7.0000e-004 | 0.9702 | 6.6000e-003 | 0.9768 | 0.1059 | 6.3100e-003 | 0.1123 | 0.0000 | 65.9180 | 65.9180 | 1.3000e-003 | 0.0000 | 65.9505 |
| Vendor | 1.1500e-003 | 0.0272 | 7.7300e-003 | 5.0000e-005 | 0.0194 | 2.5000e-004 | 0.0197 | 2.1800e-003 | 2.4000e-004 | 2.4200e-003 | 0.0000 | 5.1029 | 5.1029 | 4.4000e-004 | 0.0000 | 5.1138 |
| Worker | 2.1500e-003 | 1.7500e-003 | 0.0168 | 4.0000e-005 | 0.0682 | 3.0000e-005 | 0.0682 | 7.4000e-003 | 3.0000e-005 | 7.4300e-003 | 0.0000 | 3.6211 | 3.6211 | 1.4000e-004 | 0.0000 | 3.6245 |
| **Total** | **0.0227** | **0.2837** | **0.1196** | **7.9000e-004** | **1.0578** | **6.8800e-003** | **1.0647** | **0.1155** | **6.5800e-003** | **0.1221** | **0.0000** | **74.6419** | **74.6419** | **1.8800e-003** | **0.0000** | **74.6889** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.9800e-003 | 0.0000 | 1.9800e-003 | 2.5000e-004 | 0.0000 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0129 | 0.1906 | 0.3669 | 5.8000e-004 | | 3.6700e-003 | 3.6700e-003 | | 3.5000e-003 | 3.5000e-003 | 0.0000 | 53.4800 | 53.4800 | 0.0164 | 0.0000 | 53.8896 |
| **Total** | **0.0129** | **0.1906** | **0.3669** | **5.8000e-004** | **1.9800e-003** | **3.6700e-003** | **5.6500e-003** | **2.5000e-004** | **3.5000e-003** | **3.7500e-003** | **0.0000** | **53.4800** | **53.4800** | **0.0164** | **0.0000** | **53.8896** |

## 3.3 Grading - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0194 | 0.2547 | 0.0951 | 7.0000e-004 | 0.6145 | 6.6000e-003 | 0.6211 | 0.0704 | 6.3100e-003 | 0.0767 | 0.0000 | 65.9180 | 65.9180 | 1.3000e-003 | 0.0000 | 65.9505 |
| Vendor | 1.1500e-003 | 0.0272 | 7.7300e-003 | 5.0000e-005 | 0.0124 | 2.5000e-004 | 0.0126 | 1.4700e-003 | 2.4000e-004 | 1.7100e-003 | 0.0000 | 5.1029 | 5.1029 | 4.4000e-004 | 0.0000 | 5.1138 |
| Worker | 2.1500e-003 | 1.7500e-003 | 0.0168 | 4.0000e-005 | 0.0431 | 3.0000e-005 | 0.0432 | 4.9000e-003 | 3.0000e-005 | 4.9300e-003 | 0.0000 | 3.6211 | 3.6211 | 1.4000e-004 | 0.0000 | 3.6245 |
| **Total** | **0.0227** | **0.2837** | **0.1196** | **7.9000e-004** | **0.6701** | **6.8800e-003** | **0.6769** | **0.0767** | **6.5800e-003** | **0.0833** | **0.0000** | **74.6419** | **74.6419** | **1.8800e-003** | **0.0000** | **74.6889** |

## 3.3 Grading - 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 | | | | | 4.3900e-003 | 0.0000 | 4.3900e-003 | 5.7000e-004 | 0.0000 | 5.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0703 | 0.8378 | 0.4553 | 9.4000e-004 | | 0.0371 | 0.0371 | | 0.0341 | 0.0341 | 0.0000 | 85.8369 | 85.8369 | 0.0267 | 0.0000 | 86.5049 |
| **Total** | **0.0703** | **0.8378** | **0.4553** | **9.4000e-004** | **4.3900e-003** | **0.0371** | **0.0415** | **5.7000e-004** | **0.0341** | **0.0347** | **0.0000** | **85.8369** | **85.8369** | **0.0267** | **0.0000** | **86.5049** |

## 3.3 Grading - 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 | 0.0274 | 0.3747 | 0.1330 | 1.1300e-003 | 0.9755 | 9.0600e-003 | 0.9846 | 0.1081 | 8.6700e-003 | 0.1168 | 0.0000 | 107.1741 | 107.1741 | 1.8200e-003 | 0.0000 | 107.2194 |
| Vendor | 1.6300e-003 | 0.0414 | 0.0114 | 9.0000e-005 | 0.0317 | 3.2000e-004 | 0.0320 | 3.5500e-003 | 3.1000e-004 | 3.8600e-003 | 0.0000 | 8.2974 | 8.2974 | 6.8000e-004 | 0.0000 | 8.3145 |
| Worker | 3.1800e-003 | 2.5200e-003 | 0.0242 | 6.0000e-005 | 0.1112 | 4.0000e-005 | 0.1113 | 0.0121 | 4.0000e-005 | 0.0121 | 0.0000 | 5.7420 | 5.7420 | 2.0000e-004 | 0.0000 | 5.7470 |
| **Total** | **0.0322** | **0.4186** | **0.1686** | **1.2800e-003** | **1.1184** | **9.4200e-003** | **1.1278** | **0.1238** | **9.0200e-003** | **0.1328** | **0.0000** | **121.2135** | **121.2135** | **2.7000e-003** | **0.0000** | **121.2809** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.9800e-003 | 0.0000 | 1.9800e-003 | 2.5000e-004 | 0.0000 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0199 | 0.3109 | 0.5969 | 9.4000e-004 | | 5.3200e-003 | 5.3200e-003 | | 5.1000e-003 | 5.1000e-003 | 0.0000 | 85.8368 | 85.8368 | 0.0267 | 0.0000 | 86.5048 |
| **Total** | **0.0199** | **0.3109** | **0.5969** | **9.4000e-004** | **1.9800e-003** | **5.3200e-003** | **7.3000e-003** | **2.5000e-004** | **5.1000e-003** | **5.3500e-003** | **0.0000** | **85.8368** | **85.8368** | **0.0267** | **0.0000** | **86.5048** |

### 3.3 Grading - 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 | 0.0274 | 0.3747 | 0.1330 | 1.1300e-003 | 0.6198 | 9.0600e-003 | 0.6289 | 0.0726 | 8.6700e-003 | 0.0812 | 0.0000 | 107.1741 | 107.1741 | 1.8200e-003 | 0.0000 | 107.2194 |
| Vendor | 1.6300e-003 | 0.0414 | 0.0114 | 9.0000e-005 | 0.0202 | 3.2000e-004 | 0.0205 | 2.4000e-003 | 3.1000e-004 | 2.7100e-003 | 0.0000 | 8.2974 | 8.2974 | 6.8000e-004 | 0.0000 | 8.3145 |
| Worker | 3.1800e-003 | 2.5200e-003 | 0.0242 | 6.0000e-005 | 0.0704 | 4.0000e-005 | 0.0704 | 8.0000e-003 | 4.0000e-005 | 8.0400e-003 | 0.0000 | 5.7420 | 5.7420 | 2.0000e-004 | 0.0000 | 5.7470 |
| **Total** | **0.0322** | **0.4186** | **0.1686** | **1.2800e-003** | **0.7104** | **9.4200e-003** | **0.7198** | **0.0830** | **9.0200e-003** | **0.0920** | **0.0000** | **121.2135** | **121.2135** | **2.7000e-003** | **0.0000** | **121.2809** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-003 |
| Unmitigated | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-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 | 0.7332 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.7000e-004 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-003 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

**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 | 0.7332 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.7000e-004 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-003 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Tijuana River Valley Channel Maintenance Project (City of San Diego)

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 187.74 | 1000sqft | 4.31 | 187,744.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - See 1.0 Project Characteristics.

Land Use - See 1.1 Land Usage.

Construction Phase - See 3.0 Construction Detail. Assumed a 20-week grading phase to represent total project construction. A separate phase was utilized to represent part time use of pumps.

Off-road Equipment -

Off-road Equipment - Grading - See 3.0 Construction Detail.

Off-road Equipment - Pump Use - See 3.0 Construction Detail.

Trips and VMT - See 3.0 Construction Detail. Assumed 12 CY (MHDT) haul trucks. Haul truck trip length represents distance to nearby landfill. All vehicles and trucks associated with the Pump Use phase included in the Grading phase.

On-road Fugitive Dust - Assumed 99% paved for worker, vendor trucks, and haul trucks.

Grading - Export of 30,000 CY. 4.31 acres graded.

Vehicle Trips - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Woodstoves - No operation.

Consumer Products - No operation.

Area Coating - No operation.

Landscape Equipment - No operation.

Energy Use - No operation.

Water And Wastewater - No operation.

Solid Waste - No operation.

Construction Off-road Equipment Mitigation - Water Exposed Area, Frequency: 2 times per day. Unpaved Road Mitigation, limit vehicle speed to 15 mph.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 93872 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 281616 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |

| | | | |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 8.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 25.00 |
| tblConstructionPhase | PhaseEndDate | 11/17/2017 | 3/27/2018 |
| tblConstructionPhase | PhaseEndDate | 11/7/2017 | 12/5/2017 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 75.00 | 4.31 |
| tblGrading | MaterialExported | 0.00 | 30,000.00 |
| tblLandUse | LandUseSquareFeet | 187,740.00 | 187,744.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Grading |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 99.00 |
| tblSolidWaste | SolidWasteGenerationRate | 232.80 | 0.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 28.00 |
| tblTripsAndVMT | HaulingTripNumber | 3,750.00 | 5,000.00 |
| tblTripsAndVMT | HaulingVehicleClass | HHDT | MHDT |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 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 | 43,414,875.00 | 0.00 |

## 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 | | | | | |
| 2017 | 0.1053 | 1.1268 | 0.6237 | 1.7400e-003 | 1.0622 | 0.0513 | 1.1135 | 0.1161 | 0.0489 | 0.1649 | 0.0000 | 159.9149 | 159.9149 | 0.0210 | 0.0000 | 160.4400 |
| 2018 | 0.1024 | 1.2564 | 0.6238 | 2.2200e-003 | 1.1228 | 0.0465 | 1.1693 | 0.1243 | 0.0431 | 0.1674 | 0.0000 | 207.0504 | 207.0504 | 0.0294 | 0.0000 | 207.7859 |
| **Maximum** | **0.1053** | **1.2564** | **0.6238** | **2.2200e-003** | **1.1228** | **0.0513** | **1.1693** | **0.1243** | **0.0489** | **0.1674** | **0.0000** | **207.0504** | **207.0504** | **0.0294** | **0.0000** | **207.7859** |

### 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 | | | | | |
| 2017 | 0.1053 | 1.0866 | 0.6237 | 1.7400e-003 | 0.6720 | 0.0513 | 0.7233 | 0.0770 | 0.0489 | 0.1259 | 0.0000 | 159.9148 | 159.9148 | 0.0210 | 0.0000 | 160.4399 |
| 2018 | 0.1024 | 1.2027 | 0.6238 | 2.2200e-003 | 0.7124 | 0.0465 | 0.7589 | 0.0832 | 0.0431 | 0.1263 | 0.0000 | 207.0503 | 207.0503 | 0.0294 | 0.0000 | 207.7858 |
| **Maximum** | **0.1053** | **1.2027** | **0.6238** | **2.2200e-003** | **0.7124** | **0.0513** | **0.7589** | **0.0832** | **0.0489** | **0.1263** | **0.0000** | **207.0503** | **207.0503** | **0.0294** | **0.0000** | **207.7858** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **3.94** | **0.00** | **0.00** | **36.64** | **0.00** | **35.07** | **33.37** | **0.00** | **24.13** | **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 | 11-1-2017 | 1-31-2018 | 1.7305 | 1.6705 |
| 2 | 2-1-2018 | 4-30-2018 | 0.8603 | 0.8263 |
| | | Highest | 1.7305 | 1.6705 |

## 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 | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-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 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

## 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 | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-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 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 12/5/2017 | 5 | 25 | |
| 2 | Grading | Grading | 11/8/2017 | 3/27/2018 | 5 | 100 | |

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

**Acres of Grading (Grading Phase): 4.31**

**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 |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 6.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 6.00 | 158 | 0.38 |
| Grading | Graders | 0 | 0.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 6.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 1 | 6.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Trenchers | 1 | 2.00 | 78 | 0.50 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 24.00 | 10.00 | 5,000.00 | 10.80 | 7.30 | 28.00 | LD_Mix | HDT_Mix | MHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0337 | 0.2549 | 0.2155 | 3.7000e-004 | | 0.0177 | 0.0177 | | 0.0177 | 0.0177 | 0.0000 | 31.7929 | 31.7929 | 2.7400e-003 | 0.0000 | 31.8615 |
| **Total** | **0.0337** | **0.2549** | **0.2155** | **3.7000e-004** | **0.0000** | **0.0177** | **0.0177** | **0.0000** | **0.0177** | **0.0177** | **0.0000** | **31.7929** | **31.7929** | **2.7400e-003** | **0.0000** | **31.8615** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

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

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0337 | 0.2549 | 0.2155 | 3.7000e-004 | | 0.0177 | 0.0177 | | 0.0177 | 0.0177 | 0.0000 | 31.7929 | 31.7929 | 2.7400e-003 | 0.0000 | 31.8614 |
| **Total** | **0.0337** | **0.2549** | **0.2155** | **3.7000e-004** | **0.0000** | **0.0177** | **0.0177** | **0.0000** | **0.0177** | **0.0177** | **0.0000** | **31.7929** | **31.7929** | **2.7400e-003** | **0.0000** | **31.8614** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

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

## 3.3 Grading - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 4.3900e-003 | 0.0000 | 4.3900e-003 | 5.7000e-004 | 0.0000 | 5.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0490 | 0.5882 | 0.2886 | 5.8000e-004 | | 0.0267 | 0.0267 | | 0.0246 | 0.0246 | 0.0000 | 53.4801 | 53.4801 | 0.0164 | 0.0000 | 53.8897 |
| **Total** | **0.0490** | **0.5882** | **0.2886** | **5.8000e-004** | **4.3900e-003** | **0.0267** | **0.0311** | **5.7000e-004** | **0.0246** | **0.0252** | **0.0000** | **53.4801** | **53.4801** | **0.0164** | **0.0000** | **53.8897** |

## 3.3 Grading - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0194 | 0.2547 | 0.0951 | 7.0000e-004 | 0.9702 | 6.6000e-003 | 0.9768 | 0.1059 | 6.3100e-003 | 0.1123 | 0.0000 | 65.9180 | 65.9180 | 1.3000e-003 | 0.0000 | 65.9505 |
| Vendor | 1.1500e-003 | 0.0272 | 7.7300e-003 | 5.0000e-005 | 0.0194 | 2.5000e-004 | 0.0197 | 2.1800e-003 | 2.4000e-004 | 2.4200e-003 | 0.0000 | 5.1029 | 5.1029 | 4.4000e-004 | 0.0000 | 5.1138 |
| Worker | 2.1500e-003 | 1.7500e-003 | 0.0168 | 4.0000e-005 | 0.0682 | 3.0000e-005 | 0.0682 | 7.4000e-003 | 3.0000e-005 | 7.4300e-003 | 0.0000 | 3.6211 | 3.6211 | 1.4000e-004 | 0.0000 | 3.6245 |
| **Total** | **0.0227** | **0.2837** | **0.1196** | **7.9000e-004** | **1.0578** | **6.8800e-003** | **1.0647** | **0.1155** | **6.5800e-003** | **0.1221** | **0.0000** | **74.6419** | **74.6419** | **1.8800e-003** | **0.0000** | **74.6889** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.9800e-003 | 0.0000 | 1.9800e-003 | 2.5000e-004 | 0.0000 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0490 | 0.5480 | 0.2886 | 5.8000e-004 | | 0.0267 | 0.0267 | | 0.0246 | 0.0246 | 0.0000 | 53.4800 | 53.4800 | 0.0164 | 0.0000 | 53.8896 |
| **Total** | **0.0490** | **0.5480** | **0.2886** | **5.8000e-004** | **1.9800e-003** | **0.0267** | **0.0287** | **2.5000e-004** | **0.0246** | **0.0248** | **0.0000** | **53.4800** | **53.4800** | **0.0164** | **0.0000** | **53.8896** |

## 3.3 Grading - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0194 | 0.2547 | 0.0951 | 7.0000e-004 | 0.6145 | 6.6000e-003 | 0.6211 | 0.0704 | 6.3100e-003 | 0.0767 | 0.0000 | 65.9180 | 65.9180 | 1.3000e-003 | 0.0000 | 65.9505 |
| Vendor | 1.1500e-003 | 0.0272 | 7.7300e-003 | 5.0000e-005 | 0.0124 | 2.5000e-004 | 0.0126 | 1.4700e-003 | 2.4000e-004 | 1.7100e-003 | 0.0000 | 5.1029 | 5.1029 | 4.4000e-004 | 0.0000 | 5.1138 |
| Worker | 2.1500e-003 | 1.7500e-003 | 0.0168 | 4.0000e-005 | 0.0431 | 3.0000e-005 | 0.0432 | 4.9000e-003 | 3.0000e-005 | 4.9300e-003 | 0.0000 | 3.6211 | 3.6211 | 1.4000e-004 | 0.0000 | 3.6245 |
| **Total** | **0.0227** | **0.2837** | **0.1196** | **7.9000e-004** | **0.6701** | **6.8800e-003** | **0.6769** | **0.0767** | **6.5800e-003** | **0.0833** | **0.0000** | **74.6419** | **74.6419** | **1.8800e-003** | **0.0000** | **74.6889** |

## 3.3 Grading - 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 | | | | | 4.3900e-003 | 0.0000 | 4.3900e-003 | 5.7000e-004 | 0.0000 | 5.7000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0703 | 0.8378 | 0.4553 | 9.4000e-004 | | 0.0371 | 0.0371 | | 0.0341 | 0.0341 | 0.0000 | 85.8369 | 85.8369 | 0.0267 | 0.0000 | 86.5049 |
| **Total** | **0.0703** | **0.8378** | **0.4553** | **9.4000e-004** | **4.3900e-003** | **0.0371** | **0.0415** | **5.7000e-004** | **0.0341** | **0.0347** | **0.0000** | **85.8369** | **85.8369** | **0.0267** | **0.0000** | **86.5049** |

## 3.3 Grading - 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 | 0.0274 | 0.3747 | 0.1330 | 1.1300e-003 | 0.9755 | 9.0600e-003 | 0.9846 | 0.1081 | 8.6700e-003 | 0.1168 | 0.0000 | 107.1741 | 107.1741 | 1.8200e-003 | 0.0000 | 107.2194 |
| Vendor | 1.6300e-003 | 0.0414 | 0.0114 | 9.0000e-005 | 0.0317 | 3.2000e-004 | 0.0320 | 3.5500e-003 | 3.1000e-004 | 3.8600e-003 | 0.0000 | 8.2974 | 8.2974 | 6.8000e-004 | 0.0000 | 8.3145 |
| Worker | 3.1800e-003 | 2.5200e-003 | 0.0242 | 6.0000e-005 | 0.1112 | 4.0000e-005 | 0.1113 | 0.0121 | 4.0000e-005 | 0.0121 | 0.0000 | 5.7420 | 5.7420 | 2.0000e-004 | 0.0000 | 5.7470 |
| **Total** | **0.0322** | **0.4186** | **0.1686** | **1.2800e-003** | **1.1184** | **9.4200e-003** | **1.1278** | **0.1238** | **9.0200e-003** | **0.1328** | **0.0000** | **121.2135** | **121.2135** | **2.7000e-003** | **0.0000** | **121.2809** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.9800e-003 | 0.0000 | 1.9800e-003 | 2.5000e-004 | 0.0000 | 2.5000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0703 | 0.7841 | 0.4553 | 9.4000e-004 | | 0.0371 | 0.0371 | | 0.0341 | 0.0341 | 0.0000 | 85.8368 | 85.8368 | 0.0267 | 0.0000 | 86.5048 |
| **Total** | **0.0703** | **0.7841** | **0.4553** | **9.4000e-004** | **1.9800e-003** | **0.0371** | **0.0391** | **2.5000e-004** | **0.0341** | **0.0344** | **0.0000** | **85.8368** | **85.8368** | **0.0267** | **0.0000** | **86.5048** |

### 3.3 Grading - 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 | 0.0274 | 0.3747 | 0.1330 | 1.1300e-003 | 0.6198 | 9.0600e-003 | 0.6289 | 0.0726 | 8.6700e-003 | 0.0812 | 0.0000 | 107.1741 | 107.1741 | 1.8200e-003 | 0.0000 | 107.2194 |
| Vendor | 1.6300e-003 | 0.0414 | 0.0114 | 9.0000e-005 | 0.0202 | 3.2000e-004 | 0.0205 | 2.4000e-003 | 3.1000e-004 | 2.7100e-003 | 0.0000 | 8.2974 | 8.2974 | 6.8000e-004 | 0.0000 | 8.3145 |
| Worker | 3.1800e-003 | 2.5200e-003 | 0.0242 | 6.0000e-005 | 0.0704 | 4.0000e-005 | 0.0704 | 8.0000e-003 | 4.0000e-005 | 8.0400e-003 | 0.0000 | 5.7420 | 5.7420 | 2.0000e-004 | 0.0000 | 5.7470 |
| **Total** | **0.0322** | **0.4186** | **0.1686** | **1.2800e-003** | **0.7104** | **9.4200e-003** | **0.7198** | **0.0830** | **9.0200e-003** | **0.0920** | **0.0000** | **121.2135** | **121.2135** | **2.7000e-003** | **0.0000** | **121.2809** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-003 |
| Unmitigated | 0.7334 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-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 | 0.7332 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.7000e-004 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-003 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

**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 | 0.7332 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.7000e-004 | 2.0000e-005 | 1.7400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | 0.0000 | 3.3500e-003 | 3.3500e-003 | 1.0000e-005 | 0.0000 | 3.5800e-003 |
| **Total** | **0.7334** | **2.0000e-005** | **1.7400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | **0.0000** | **3.3500e-003** | **3.3500e-003** | **1.0000e-005** | **0.0000** | **3.5800e-003** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Tijuana River Valley Channel Maintenance Project (City of San Diego) Mitigated

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 187.74 | 1000sqft | 4.31 | 187,744.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - See 1.0 Project Characteristics. Mitigated

Land Use - See 1.1 Land Usage.

Construction Phase - See 3.0 Construction Detail. Assumed a 20-week grading phase to represent total project construction. A separate phase was utilized to represent part time use of pumps.

Off-road Equipment -

Off-road Equipment - Grading - See 3.0 Construction Detail.

Off-road Equipment - Pump Use - See 3.0 Construction Detail.

Trips and VMT - See 3.0 Construction Detail. Assumed 12 CY (MHDT) haul trucks. Haul truck trip length represents distance to nearby landfill. All vehicles and trucks associated with the Pump Use phase included in the Grading phase.

On-road Fugitive Dust - Assumed 99% paved for worker, vendor trucks, and haul trucks.

Grading - Export of 30,000 CY. 4.31 acres graded.

Vehicle Trips - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Woodstoves - No operation.

Consumer Products - No operation.

Area Coating - No operation.

Landscape Equipment - No operation.

Energy Use - No operation.

Water And Wastewater - No operation.

Solid Waste - No operation.

Construction Off-road Equipment Mitigation - Water Exposed Area, Frequency: 2 times per day. Unpaved Road Mitigation, limit vehicle speed to 15 mph. Mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 93872 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 281616 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |

Tijuana River Valley Channel Maintenance Project (City of San Diego) Mitigated - San Diego County, Summer

| | | | |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 8.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 25.00 |
| tblConstructionPhase | PhaseEndDate | 11/17/2017 | 3/27/2018 |
| tblConstructionPhase | PhaseEndDate | 11/7/2017 | 12/5/2017 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 75.00 | 4.31 |
| tblGrading | MaterialExported | 0.00 | 30,000.00 |
| tblLandUse | LandUseSquareFeet | 187,740.00 | 187,744.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 99.00 |

| | | | |
|---|---|---|---|
| tblOnRoadDust | WorkerPercentPave | 100.00 | 99.00 |
| tblSolidWaste | SolidWasteGenerationRate | 232.80 | 0.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 28.00 |
| tblTripsAndVMT | HaulingTripNumber | 3,750.00 | 5,000.00 |
| tblTripsAndVMT | HaulingVehicleClass | HHDT | MHDT |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 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 | 43,414,875.00 | 0.00 |

## 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 | | | | | |
| 2017 | 6.4582 | 65.7974 | 38.7045 | 0.1017 | 62.3112 | 3.1841 | 65.4953 | 6.7550 | 3.0559 | 9.8109 | 0.0000 | 10,252.3236 | 10,252.3236 | 1.3011 | 0.0000 | 10,284.8501 |
| 2018 | 3.2975 | 40.0995 | 20.1048 | 0.0719 | 40.3896 | 1.4999 | 41.8895 | 4.4315 | 1.3910 | 5.8226 | 0.0000 | 7,377.6720 | 7,377.6720 | 1.0459 | 0.0000 | 7,403.8184 |
| **Maximum** | **6.4582** | **65.7974** | **38.7045** | **0.1017** | **62.3112** | **3.1841** | **65.4953** | **6.7550** | **3.0559** | **9.8109** | **0.0000** | **10,252.3236** | **10,252.3236** | **1.3011** | **0.0000** | **10,284.8501** |

### 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 | | | | | |
| 2017 | 2.4064 | 35.0309 | 43.8375 | 0.1017 | 39.3434 | 0.5944 | 39.9378 | 4.4568 | 0.5697 | 5.0265 | 0.0000 | 10,252.3236 | 10,252.3236 | 1.3011 | 0.0000 | 10,284.8501 |
| 2018 | 1.6743 | 23.1028 | 24.6731 | 0.0719 | 25.5600 | 0.4756 | 26.0356 | 2.9472 | 0.4551 | 3.4023 | 0.0000 | 7,377.6720 | 7,377.6720 | 1.0459 | 0.0000 | 7,403.8184 |
| **Maximum** | **2.4064** | **35.0309** | **43.8375** | **0.1017** | **39.3434** | **0.5944** | **39.9378** | **4.4568** | **0.5697** | **5.0265** | **0.0000** | **10,252.3236** | **10,252.3236** | **1.3011** | **0.0000** | **10,284.8501** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **58.17** | **45.10** | **-16.50** | **0.00** | **36.80** | **77.16** | **38.56** | **33.81** | **76.96** | **46.08** | **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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

### 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 12/5/2017 | 5 | 25 | |
| 2 | Grading | Grading | 11/8/2017 | 3/27/2018 | 5 | 100 | |

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

**Acres of Grading (Grading Phase): 4.31**

**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 |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 6.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 6.00 | 158 | 0.38 |
| Grading | Graders | 0 | 0.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 6.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 1 | 6.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Trenchers | 1 | 2.00 | 78 | 0.50 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 24.00 | 10.00 | 5,000.00 | 10.80 | 7.30 | 28.00 | LD_Mix | HDT_Mix | MHDT |
| Pump Use | 6 | 0.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.0000** | **0.0395** | **0.0395** | **0.0000** | **0.0395** | **0.0395** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Grading - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.5784 | 30.9580 | 15.1885 | 0.0303 | | 1.4064 | 1.4064 | | 1.2939 | 1.2939 | | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **2.5784** | **30.9580** | **15.1885** | **0.0303** | **0.0879** | **1.4064** | **1.4942** | **0.0113** | **1.2939** | **1.3052** | | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0138 | 12.9498 | 4.9599 | 0.0368 | 57.0717 | 0.3473 | 57.4190 | 6.1846 | 0.3322 | 6.5168 | | 3,825.2992 | 3,825.2992 | 0.0757 | | 3,827.1914 |
| Vendor | 0.0596 | 1.4116 | 0.3874 | 2.8000e-003 | 1.1415 | 0.0132 | 1.1547 | 0.1266 | 0.0126 | 0.1392 | | 299.1029 | 299.1029 | 0.0248 | | 299.7216 |
| Worker | 0.1128 | 0.0832 | 0.9264 | 2.2300e-003 | 4.0100 | 1.4500e-003 | 4.0115 | 0.4325 | 1.3400e-003 | 0.4339 | | 221.5470 | 221.5470 | 8.2200e-003 | | 221.7525 |
| **Total** | **1.1861** | **14.4446** | **6.2737** | **0.0418** | **62.2233** | **0.3619** | **62.5852** | **6.7437** | **0.3461** | **7.0898** | | **4,345.9491** | **4,345.9491** | **0.1087** | | **4,348.6655** |

## 3.3 Grading - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6776 | 10.0287 | 19.3102 | 0.0303 | | 0.1931 | 0.1931 | | 0.1841 | 0.1841 | 0.0000 | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **0.6776** | **10.0287** | **19.3102** | **0.0303** | **0.0395** | **0.1931** | **0.2326** | **5.0900e-003** | **0.1841** | **0.1892** | **0.0000** | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0138 | 12.9498 | 4.9599 | 0.0368 | 36.0480 | 0.3473 | 36.3952 | 4.0822 | 0.3322 | 4.4144 | | 3,825.2992 | 3,825.2992 | 0.0757 | | 3,827.1914 |
| Vendor | 0.0596 | 1.4116 | 0.3874 | 2.8000e-003 | 0.7250 | 0.0132 | 0.7381 | 0.0849 | 0.0126 | 0.0975 | | 299.1029 | 299.1029 | 0.0248 | | 299.7216 |
| Worker | 0.1128 | 0.0832 | 0.9264 | 2.2300e-003 | 2.5309 | 1.4500e-003 | 2.5324 | 0.2846 | 1.3400e-003 | 0.2860 | | 221.5470 | 221.5470 | 8.2200e-003 | | 221.7525 |
| **Total** | **1.1861** | **14.4446** | **6.2737** | **0.0418** | **39.3039** | **0.3619** | **39.6657** | **4.4517** | **0.3461** | **4.7979** | | **4,345.9491** | **4,345.9491** | **0.1087** | | **4,348.6655** |

## 3.3 Grading - 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2660 | 27.0254 | 14.6860 | 0.0303 | | 1.1961 | 1.1961 | | 1.1004 | 1.1004 | | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **2.2660** | **27.0254** | **14.6860** | **0.0303** | **0.0879** | **1.1961** | **1.2839** | **0.0113** | **1.1004** | **1.1117** | | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8777 | 11.6829 | 4.2483 | 0.0366 | 35.1501 | 0.2921 | 35.4423 | 3.8611 | 0.2795 | 4.1406 | | 3,811.9237 | 3,811.9237 | 0.0647 | | 3,813.5400 |
| Vendor | 0.0516 | 1.3175 | 0.3489 | 2.7900e-003 | 1.1415 | 0.0103 | 1.1518 | 0.1266 | 9.8600e-003 | 0.1364 | | 298.1899 | 298.1899 | 0.0236 | | 298.7807 |
| Worker | 0.1022 | 0.0736 | 0.8216 | 2.1600e-003 | 4.0100 | 1.4200e-003 | 4.0115 | 0.4325 | 1.3100e-003 | 0.4338 | | 215.3339 | 215.3339 | 7.3700e-003 | | 215.5181 |
| **Total** | **1.0314** | **13.0740** | **5.4188** | **0.0416** | **40.3017** | **0.3038** | **40.6055** | **4.4202** | **0.2906** | **4.7109** | | **4,325.4474** | **4,325.4474** | **0.0957** | | **4,327.8388** |

## 3.3 Grading - 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6429 | 10.0287 | 19.2542 | 0.0303 | | 0.1717 | 0.1717 | | 0.1645 | 0.1645 | 0.0000 | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **0.6429** | **10.0287** | **19.2542** | **0.0303** | **0.0395** | **0.1717** | **0.2113** | **5.0900e-003** | **0.1645** | **0.1695** | **0.0000** | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8777 | 11.6829 | 4.2483 | 0.0366 | 22.2646 | 0.2921 | 22.5567 | 2.5726 | 0.2795 | 2.8520 | | 3,811.9237 | 3,811.9237 | 0.0647 | | 3,813.5400 |
| Vendor | 0.0516 | 1.3175 | 0.3489 | 2.7900e-003 | 0.7250 | 0.0103 | 0.7353 | 0.0849 | 9.8600e-003 | 0.0948 | | 298.1899 | 298.1899 | 0.0236 | | 298.7807 |
| Worker | 0.1022 | 0.0736 | 0.8216 | 2.1600e-003 | 2.5309 | 1.4200e-003 | 2.5323 | 0.2846 | 1.3100e-003 | 0.2859 | | 215.3339 | 215.3339 | 7.3700e-003 | | 215.5181 |
| **Total** | **1.0314** | **13.0740** | **5.4188** | **0.0416** | **25.5205** | **0.3038** | **25.8243** | **2.9421** | **0.2906** | **3.2327** | | **4,325.4474** | **4,325.4474** | **0.0957** | | **4,327.8388** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| Unmitigated | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |

## 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

### 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

## 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**

| 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

# Tijuana River Valley Channel Maintenance Project (City of San Diego)

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 187.74 | 1000sqft | 4.31 | 187,744.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - See 1.0 Project Characteristics.

Land Use - See 1.1 Land Usage.

Construction Phase - See 3.0 Construction Detail. Assumed a 20-week grading phase to represent total project construction. A separate phase was utilized to represent part time use of pumps.

Off-road Equipment -

Off-road Equipment - Grading - See 3.0 Construction Detail.

Off-road Equipment - Pump Use - See 3.0 Construction Detail.

Trips and VMT - See 3.0 Construction Detail. Assumed 12 CY (MHDT) haul trucks. Haul truck trip length represents distance to nearby landfill. All vehicles and trucks associated with the Pump Use phase included in the Grading phase.

On-road Fugitive Dust - Assumed 99% paved for worker, vendor trucks, and haul trucks.

Grading - Export of 30,000 CY. 4.31 acres graded.

Vehicle Trips - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Woodstoves - No operation.

Consumer Products - No operation.

Area Coating - No operation.

Landscape Equipment - No operation.

Energy Use - No operation.

Water And Wastewater - No operation.

Solid Waste - No operation.

Construction Off-road Equipment Mitigation - Water Exposed Area, Frequency: 2 times per day. Unpaved Road Mitigation, limit vehicle speed to 15 mph.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 93872 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 281616 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |

| | | | |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 8.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 25.00 |
| tblConstructionPhase | PhaseEndDate | 11/17/2017 | 3/27/2018 |
| tblConstructionPhase | PhaseEndDate | 11/7/2017 | 12/5/2017 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 75.00 | 4.31 |
| tblGrading | MaterialExported | 0.00 | 30,000.00 |
| tblLandUse | LandUseSquareFeet | 187,740.00 | 187,744.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Grading |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 99.00 |
| tblSolidWaste | SolidWasteGenerationRate | 232.80 | 0.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 28.00 |
| tblTripsAndVMT | HaulingTripNumber | 3,750.00 | 5,000.00 |
| tblTripsAndVMT | HaulingVehicleClass | HHDT | MHDT |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 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 | 43,414,875.00 | 0.00 |

## 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 | | | | | |
| 2017 | 6.4582 | 65.7974 | 38.7045 | 0.1017 | 62.3112 | 3.1841 | 65.4953 | 6.7550 | 3.0559 | 9.8109 | 0.0000 | 10,252.3236 | 10,252.3236 | 1.3011 | 0.0000 | 10,284.8501 |
| 2018 | 3.2975 | 40.0995 | 20.1048 | 0.0719 | 40.3896 | 1.4999 | 41.8895 | 4.4315 | 1.3910 | 5.8226 | 0.0000 | 7,377.6720 | 7,377.6720 | 1.0459 | 0.0000 | 7,403.8184 |
| **Maximum** | **6.4582** | **65.7974** | **38.7045** | **0.1017** | **62.3112** | **3.1841** | **65.4953** | **6.7550** | **3.0559** | **9.8109** | **0.0000** | **10,252.3236** | **10,252.3236** | **1.3011** | **0.0000** | **10,284.8501** |

### 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 | | | | | |
| 2017 | 6.4582 | 63.6795 | 38.7045 | 0.1017 | 39.3434 | 3.1841 | 42.5275 | 4.4568 | 3.0559 | 7.5127 | 0.0000 | 10,252.3236 | 10,252.3236 | 1.3011 | 0.0000 | 10,284.8501 |
| 2018 | 3.2975 | 38.3677 | 20.1048 | 0.0719 | 25.5600 | 1.4999 | 27.0599 | 2.9472 | 1.3910 | 4.3382 | 0.0000 | 7,377.6720 | 7,377.6720 | 1.0459 | 0.0000 | 7,403.8184 |
| **Maximum** | **6.4582** | **63.6795** | **38.7045** | **0.1017** | **39.3434** | **3.1841** | **42.5275** | **4.4568** | **3.0559** | **7.5127** | **0.0000** | **10,252.3236** | **10,252.3236** | **1.3011** | **0.0000** | **10,284.8501** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **3.64** | **0.00** | **0.00** | **36.80** | **0.00** | **35.20** | **33.81** | **0.00** | **24.20** | **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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

### 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 12/5/2017 | 5 | 25 | |
| 2 | Grading | Grading | 11/8/2017 | 3/27/2018 | 5 | 100 | |

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

**Acres of Grading (Grading Phase): 4.31**

**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 |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 6.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 6.00 | 158 | 0.38 |
| Grading | Graders | 0 | 0.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 6.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 1 | 6.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Trenchers | 1 | 2.00 | 78 | 0.50 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 24.00 | 10.00 | 5,000.00 | 10.80 | 7.30 | 28.00 | LD_Mix | HDT_Mix | MHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Grading - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.5784 | 30.9580 | 15.1885 | 0.0303 | | 1.4064 | 1.4064 | | 1.2939 | 1.2939 | | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **2.5784** | **30.9580** | **15.1885** | **0.0303** | **0.0879** | **1.4064** | **1.4942** | **0.0113** | **1.2939** | **1.3052** | | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0138 | 12.9498 | 4.9599 | 0.0368 | 57.0717 | 0.3473 | 57.4190 | 6.1846 | 0.3322 | 6.5168 | | 3,825.2992 | 3,825.2992 | 0.0757 | | 3,827.1914 |
| Vendor | 0.0596 | 1.4116 | 0.3874 | 2.8000e-003 | 1.1415 | 0.0132 | 1.1547 | 0.1266 | 0.0126 | 0.1392 | | 299.1029 | 299.1029 | 0.0248 | | 299.7216 |
| Worker | 0.1128 | 0.0832 | 0.9264 | 2.2300e-003 | 4.0100 | 1.4500e-003 | 4.0115 | 0.4325 | 1.3400e-003 | 0.4339 | | 221.5470 | 221.5470 | 8.2200e-003 | | 221.7525 |
| **Total** | **1.1861** | **14.4446** | **6.2737** | **0.0418** | **62.2233** | **0.3619** | **62.5852** | **6.7437** | **0.3461** | **7.0898** | | **4,345.9491** | **4,345.9491** | **0.1087** | | **4,348.6655** |

## 3.3 Grading - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.5784 | 28.8402 | 15.1885 | 0.0303 | | 1.4064 | 1.4064 | | 1.2939 | 1.2939 | 0.0000 | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **2.5784** | **28.8402** | **15.1885** | **0.0303** | **0.0395** | **1.4064** | **1.4459** | **5.0900e-003** | **1.2939** | **1.2990** | **0.0000** | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0138 | 12.9498 | 4.9599 | 0.0368 | 36.0480 | 0.3473 | 36.3952 | 4.0822 | 0.3322 | 4.4144 | | 3,825.2992 | 3,825.2992 | 0.0757 | | 3,827.1914 |
| Vendor | 0.0596 | 1.4116 | 0.3874 | 2.8000e-003 | 0.7250 | 0.0132 | 0.7381 | 0.0849 | 0.0126 | 0.0975 | | 299.1029 | 299.1029 | 0.0248 | | 299.7216 |
| Worker | 0.1128 | 0.0832 | 0.9264 | 2.2300e-003 | 2.5309 | 1.4500e-003 | 2.5324 | 0.2846 | 1.3400e-003 | 0.2860 | | 221.5470 | 221.5470 | 8.2200e-003 | | 221.7525 |
| **Total** | **1.1861** | **14.4446** | **6.2737** | **0.0418** | **39.3039** | **0.3619** | **39.6657** | **4.4517** | **0.3461** | **4.7979** | | **4,345.9491** | **4,345.9491** | **0.1087** | | **4,348.6655** |

## 3.3 Grading - 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2660 | 27.0254 | 14.6860 | 0.0303 | | 1.1961 | 1.1961 | | 1.1004 | 1.1004 | | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **2.2660** | **27.0254** | **14.6860** | **0.0303** | **0.0879** | **1.1961** | **1.2839** | **0.0113** | **1.1004** | **1.1117** | | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8777 | 11.6829 | 4.2483 | 0.0366 | 35.1501 | 0.2921 | 35.4423 | 3.8611 | 0.2795 | 4.1406 | | 3,811.9237 | 3,811.9237 | 0.0647 | | 3,813.5400 |
| Vendor | 0.0516 | 1.3175 | 0.3489 | 2.7900e-003 | 1.1415 | 0.0103 | 1.1518 | 0.1266 | 9.8600e-003 | 0.1364 | | 298.1899 | 298.1899 | 0.0236 | | 298.7807 |
| Worker | 0.1022 | 0.0736 | 0.8216 | 2.1600e-003 | 4.0100 | 1.4200e-003 | 4.0115 | 0.4325 | 1.3100e-003 | 0.4338 | | 215.3339 | 215.3339 | 7.3700e-003 | | 215.5181 |
| **Total** | **1.0314** | **13.0740** | **5.4188** | **0.0416** | **40.3017** | **0.3038** | **40.6055** | **4.4202** | **0.2906** | **4.7109** | | **4,325.4474** | **4,325.4474** | **0.0957** | | **4,327.8388** |

## 3.3 Grading - 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2660 | 25.2936 | 14.6860 | 0.0303 | | 1.1961 | 1.1961 | | 1.1004 | 1.1004 | 0.0000 | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **2.2660** | **25.2936** | **14.6860** | **0.0303** | **0.0395** | **1.1961** | **1.2356** | **5.0900e-003** | **1.1004** | **1.1055** | **0.0000** | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8777 | 11.6829 | 4.2483 | 0.0366 | 22.2646 | 0.2921 | 22.5567 | 2.5726 | 0.2795 | 2.8520 | | 3,811.9237 | 3,811.9237 | 0.0647 | | 3,813.5400 |
| Vendor | 0.0516 | 1.3175 | 0.3489 | 2.7900e-003 | 0.7250 | 0.0103 | 0.7353 | 0.0849 | 9.8600e-003 | 0.0948 | | 298.1899 | 298.1899 | 0.0236 | | 298.7807 |
| Worker | 0.1022 | 0.0736 | 0.8216 | 2.1600e-003 | 2.5309 | 1.4200e-003 | 2.5323 | 0.2846 | 1.3100e-003 | 0.2859 | | 215.3339 | 215.3339 | 7.3700e-003 | | 215.5181 |
| **Total** | **1.0314** | **13.0740** | **5.4188** | **0.0416** | **25.5205** | **0.3038** | **25.8243** | **2.9421** | **0.2906** | **3.2327** | | **4,325.4474** | **4,325.4474** | **0.0957** | | **4,327.8388** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| Unmitigated | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |

## 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

### 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

## 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**

| 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

# Tijuana River Valley Channel Maintenance Project (City of San Diego) Mitigated

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 187.74 | 1000sqft | 4.31 | 187,744.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - See 1.0 Project Characteristics. Mitigated

Land Use - See 1.1 Land Usage.

Construction Phase - See 3.0 Construction Detail. Assumed a 20-week grading phase to represent total project construction. A separate phase was utilized to represent part time use of pumps.

Off-road Equipment -

Off-road Equipment - Grading - See 3.0 Construction Detail.

Off-road Equipment - Pump Use - See 3.0 Construction Detail.

Trips and VMT - See 3.0 Construction Detail. Assumed 12 CY (MHDT) haul trucks. Haul truck trip length represents distance to nearby landfill. All vehicles and trucks associated with the Pump Use phase included in the Grading phase.

On-road Fugitive Dust - Assumed 99% paved for worker, vendor trucks, and haul trucks.

Grading - Export of 30,000 CY. 4.31 acres graded.

Vehicle Trips - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Woodstoves - No operation.

Consumer Products - No operation.

Area Coating - No operation.

Landscape Equipment - No operation.

Energy Use - No operation.

Water And Wastewater - No operation.

Solid Waste - No operation.

Construction Off-road Equipment Mitigation - Water Exposed Area, Frequency: 2 times per day. Unpaved Road Mitigation, limit vehicle speed to 15 mph. Mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 93872 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 281616 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |

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| | | | |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 8.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 25.00 |
| tblConstructionPhase | PhaseEndDate | 11/17/2017 | 3/27/2018 |
| tblConstructionPhase | PhaseEndDate | 11/7/2017 | 12/5/2017 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 75.00 | 4.31 |
| tblGrading | MaterialExported | 0.00 | 30,000.00 |
| tblLandUse | LandUseSquareFeet | 187,740.00 | 187,744.00 |

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| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 99.00 |

| | | | |
|---|---|---|---|
| tblOnRoadDust | WorkerPercentPave | 100.00 | 99.00 |
| tblSolidWaste | SolidWasteGenerationRate | 232.80 | 0.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 28.00 |
| tblTripsAndVMT | HaulingTripNumber | 3,750.00 | 5,000.00 |
| tblTripsAndVMT | HaulingVehicleClass | HHDT | MHDT |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 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 | 43,414,875.00 | 0.00 |

## 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 | | | | | |
| 2017 | 6.4945 | 66.2165 | 38.7904 | 0.1015 | 62.3112 | 3.1846 | 65.4958 | 6.7550 | 3.0563 | 9.8113 | 0.0000 | 10,229.1870 | 10,229.1870 | 1.3022 | 0.0000 | 10,261.7407 |
| 2018 | 3.3298 | 40.4690 | 20.1789 | 0.0717 | 40.3896 | 1.5003 | 41.8899 | 4.4315 | 1.3914 | 5.8229 | 0.0000 | 7,354.6644 | 7,354.6644 | 1.0470 | 0.0000 | 7,380.8387 |
| **Maximum** | **6.4945** | **66.2165** | **38.7904** | **0.1015** | **62.3112** | **3.1846** | **65.4958** | **6.7550** | **3.0563** | **9.8113** | **0.0000** | **10,229.1870** | **10,229.1870** | **1.3022** | **0.0000** | **10,261.7407** |

### 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 | | | | | |
| 2017 | 2.4427 | 35.4500 | 43.9234 | 0.1015 | 39.3434 | 0.5949 | 39.9383 | 4.4568 | 0.5702 | 5.0270 | 0.0000 | 10,229.1870 | 10,229.1870 | 1.3022 | 0.0000 | 10,261.7407 |
| 2018 | 1.7067 | 23.4723 | 24.7472 | 0.0717 | 25.5600 | 0.4760 | 26.0360 | 2.9472 | 0.4555 | 3.4027 | 0.0000 | 7,354.6644 | 7,354.6644 | 1.0470 | 0.0000 | 7,380.8387 |
| **Maximum** | **2.4427** | **35.4500** | **43.9234** | **0.1015** | **39.3434** | **0.5949** | **39.9383** | **4.4568** | **0.5702** | **5.0270** | **0.0000** | **10,229.1870** | **10,229.1870** | **1.3022** | **0.0000** | **10,261.7407** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **57.76** | **44.77** | **-16.45** | **0.00** | **36.80** | **77.14** | **38.56** | **33.81** | **76.94** | **46.08** | **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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

### 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 12/5/2017 | 5 | 25 | |
| 2 | Grading | Grading | 11/8/2017 | 3/27/2018 | 5 | 100 | |

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

**Acres of Grading (Grading Phase): 4.31**

**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 |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 6.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 6.00 | 158 | 0.38 |
| Grading | Graders | 0 | 0.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 6.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 1 | 6.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Trenchers | 1 | 2.00 | 78 | 0.50 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 24.00 | 10.00 | 5,000.00 | 10.80 | 7.30 | 28.00 | LD_Mix | HDT_Mix | MHDT |
| Pump Use | 6 | 0.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.0000** | **0.0395** | **0.0395** | **0.0000** | **0.0395** | **0.0395** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Grading - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.5784 | 30.9580 | 15.1885 | 0.0303 | | 1.4064 | 1.4064 | | 1.2939 | 1.2939 | | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **2.5784** | **30.9580** | **15.1885** | **0.0303** | **0.0879** | **1.4064** | **1.4942** | **0.0113** | **1.2939** | **1.3052** | | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0331 | 13.3543 | 5.0483 | 0.0367 | 57.0717 | 0.3475 | 57.4193 | 6.1846 | 0.3325 | 6.5171 | | 3,822.9686 | 3,822.9686 | 0.0756 | | 3,824.8574 |
| Vendor | 0.0620 | 1.4160 | 0.4273 | 2.7300e-003 | 1.1415 | 0.0134 | 1.1549 | 0.1266 | 0.0128 | 0.1394 | | 291.8316 | 291.8316 | 0.0263 | | 292.4902 |
| Worker | 0.1274 | 0.0934 | 0.8840 | 2.0900e-003 | 4.0100 | 1.4500e-003 | 4.0115 | 0.4325 | 1.3400e-003 | 0.4339 | | 208.0124 | 208.0124 | 7.8500e-003 | | 208.2085 |
| **Total** | **1.2224** | **14.8638** | **6.3596** | **0.0416** | **62.2233** | **0.3624** | **62.5857** | **6.7437** | **0.3466** | **7.0903** | | **4,322.8125** | **4,322.8125** | **0.1098** | | **4,325.5561** |

## 3.3 Grading - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6776 | 10.0287 | 19.3102 | 0.0303 | | 0.1931 | 0.1931 | | 0.1841 | 0.1841 | 0.0000 | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **0.6776** | **10.0287** | **19.3102** | **0.0303** | **0.0395** | **0.1931** | **0.2326** | **5.0900e-003** | **0.1841** | **0.1892** | **0.0000** | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0331 | 13.3543 | 5.0483 | 0.0367 | 36.0480 | 0.3475 | 36.3955 | 4.0822 | 0.3325 | 4.4147 | | 3,822.9686 | 3,822.9686 | 0.0756 | | 3,824.8574 |
| Vendor | 0.0620 | 1.4160 | 0.4273 | 2.7300e-003 | 0.7250 | 0.0134 | 0.7383 | 0.0849 | 0.0128 | 0.0977 | | 291.8316 | 291.8316 | 0.0263 | | 292.4902 |
| Worker | 0.1274 | 0.0934 | 0.8840 | 2.0900e-003 | 2.5309 | 1.4500e-003 | 2.5324 | 0.2846 | 1.3400e-003 | 0.2860 | | 208.0124 | 208.0124 | 7.8500e-003 | | 208.2085 |
| **Total** | **1.2224** | **14.8638** | **6.3596** | **0.0416** | **39.3039** | **0.3624** | **39.6662** | **4.4517** | **0.3466** | **4.7983** | | **4,322.8125** | **4,322.8125** | **0.1098** | | **4,325.5561** |

## 3.3 Grading - 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2660 | 27.0254 | 14.6860 | 0.0303 | | 1.1961 | 1.1961 | | 1.1004 | 1.1004 | | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **2.2660** | **27.0254** | **14.6860** | **0.0303** | **0.0879** | **1.1961** | **1.2839** | **0.0113** | **1.1004** | **1.1117** | | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8947 | 12.0412 | 4.3276 | 0.0366 | 35.1501 | 0.2924 | 35.4425 | 3.8611 | 0.2797 | 4.1408 | | 3,809.5833 | 3,809.5833 | 0.0646 | | 3,811.1986 |
| Vendor | 0.0538 | 1.3198 | 0.3860 | 2.7200e-003 | 1.1415 | 0.0105 | 1.1520 | 0.1266 | 0.0100 | 0.1366 | | 290.6979 | 290.6979 | 0.0252 | | 291.3268 |
| Worker | 0.1154 | 0.0826 | 0.7793 | 2.0300e-003 | 4.0100 | 1.4200e-003 | 4.0115 | 0.4325 | 1.3100e-003 | 0.4338 | | 202.1586 | 202.1586 | 7.0100e-003 | | 202.3337 |
| **Total** | **1.0638** | **13.4436** | **5.4929** | **0.0413** | **40.3017** | **0.3043** | **40.6060** | **4.4202** | **0.2910** | **4.7112** | | **4,302.4398** | **4,302.4398** | **0.0968** | | **4,304.8591** |

## 3.3 Grading - 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.6429 | 10.0287 | 19.2542 | 0.0303 | | 0.1717 | 0.1717 | | 0.1645 | 0.1645 | 0.0000 | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **0.6429** | **10.0287** | **19.2542** | **0.0303** | **0.0395** | **0.1717** | **0.2113** | **5.0900e-003** | **0.1645** | **0.1695** | **0.0000** | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8947 | 12.0412 | 4.3276 | 0.0366 | 22.2646 | 0.2924 | 22.5570 | 2.5726 | 0.2797 | 2.8523 | | 3,809.5833 | 3,809.5833 | 0.0646 | | 3,811.1986 |
| Vendor | 0.0538 | 1.3198 | 0.3860 | 2.7200e-003 | 0.7250 | 0.0105 | 0.7354 | 0.0849 | 0.0100 | 0.0949 | | 290.6979 | 290.6979 | 0.0252 | | 291.3268 |
| Worker | 0.1154 | 0.0826 | 0.7793 | 2.0300e-003 | 2.5309 | 1.4200e-003 | 2.5323 | 0.2846 | 1.3100e-003 | 0.2859 | | 202.1586 | 202.1586 | 7.0100e-003 | | 202.3337 |
| **Total** | **1.0638** | **13.4436** | **5.4929** | **0.0413** | **25.5205** | **0.3043** | **25.8247** | **2.9421** | **0.2910** | **3.2331** | | **4,302.4398** | **4,302.4398** | **0.0968** | | **4,304.8591** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| Unmitigated | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |

## 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

### 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

## 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**

| 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

# Tijuana River Valley Channel Maintenance Project (City of San Diego)

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 187.74 | 1000sqft | 4.31 | 187,744.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - See 1.0 Project Characteristics.

Land Use - See 1.1 Land Usage.

Construction Phase - See 3.0 Construction Detail. Assumed a 20-week grading phase to represent total project construction. A separate phase was utilized to represent part time use of pumps.

Off-road Equipment -

Off-road Equipment - Grading - See 3.0 Construction Detail.

Off-road Equipment - Pump Use - See 3.0 Construction Detail.

Trips and VMT - See 3.0 Construction Detail. Assumed 12 CY (MHDT) haul trucks. Haul truck trip length represents distance to nearby landfill. All vehicles and trucks associated with the Pump Use phase included in the Grading phase.

On-road Fugitive Dust - Assumed 99% paved for worker, vendor trucks, and haul trucks.

Grading - Export of 30,000 CY. 4.31 acres graded.

Vehicle Trips - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Vehicle Emission Factors - No operation.

Woodstoves - No operation.

Consumer Products - No operation.

Area Coating - No operation.

Landscape Equipment - No operation.

Energy Use - No operation.

Water And Wastewater - No operation.

Solid Waste - No operation.

Construction Off-road Equipment Mitigation - Water Exposed Area, Frequency: 2 times per day. Unpaved Road Mitigation, limit vehicle speed to 15 mph.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 93872 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 281616 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |

Tijuana River Valley Channel Maintenance Project (City of San Diego) - San Diego County, Winter

| | | | |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstructionPhase | NumDays | 8.00 | 100.00 |
| tblConstructionPhase | NumDays | 5.00 | 25.00 |
| tblConstructionPhase | PhaseEndDate | 11/17/2017 | 3/27/2018 |
| tblConstructionPhase | PhaseEndDate | 11/7/2017 | 12/5/2017 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 75.00 | 4.31 |
| tblGrading | MaterialExported | 0.00 | 30,000.00 |
| tblLandUse | LandUseSquareFeet | 187,740.00 | 187,744.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 6.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Grading |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | PhaseName | | Pump Use |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 99.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 99.00 |
| tblSolidWaste | SolidWasteGenerationRate | 232.80 | 0.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 28.00 |
| tblTripsAndVMT | HaulingTripNumber | 3,750.00 | 5,000.00 |
| tblTripsAndVMT | HaulingVehicleClass | HHDT | MHDT |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 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 | 43,414,875.00 | 0.00 |

## 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 | | | | | |
| 2017 | 6.4945 | 66.2165 | 38.7904 | 0.1015 | 62.3112 | 3.1846 | 65.4958 | 6.7550 | 3.0563 | 9.8113 | 0.0000 | 10,229.1870 | 10,229.1870 | 1.3022 | 0.0000 | 10,261.7407 |
| 2018 | 3.3298 | 40.4690 | 20.1789 | 0.0717 | 40.3896 | 1.5003 | 41.8899 | 4.4315 | 1.3914 | 5.8229 | 0.0000 | 7,354.6644 | 7,354.6644 | 1.0470 | 0.0000 | 7,380.8387 |
| **Maximum** | **6.4945** | **66.2165** | **38.7904** | **0.1015** | **62.3112** | **3.1846** | **65.4958** | **6.7550** | **3.0563** | **9.8113** | **0.0000** | **10,229.1870** | **10,229.1870** | **1.3022** | **0.0000** | **10,261.7407** |

### 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 | | | | | |
| 2017 | 6.4945 | 64.0987 | 38.7904 | 0.1015 | 39.3434 | 3.1846 | 42.5280 | 4.4568 | 3.0563 | 7.5132 | 0.0000 | 10,229.1870 | 10,229.1870 | 1.3022 | 0.0000 | 10,261.7407 |
| 2018 | 3.3298 | 38.7372 | 20.1789 | 0.0717 | 25.5600 | 1.5003 | 27.0603 | 2.9472 | 1.3914 | 4.3386 | 0.0000 | 7,354.6644 | 7,354.6644 | 1.0470 | 0.0000 | 7,380.8387 |
| **Maximum** | **6.4945** | **64.0987** | **38.7904** | **0.1015** | **39.3434** | **3.1846** | **42.5280** | **4.4568** | **3.0563** | **7.5132** | **0.0000** | **10,229.1870** | **10,229.1870** | **1.3022** | **0.0000** | **10,261.7407** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **3.61** | **0.00** | **0.00** | **36.80** | **0.00** | **35.20** | **33.81** | **0.00** | **24.19** | **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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

### 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| 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 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | **0.0000** | **7.0000e-005** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | **0.0000** | **0.0439** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 12/5/2017 | 5 | 25 | |
| 2 | Grading | Grading | 11/8/2017 | 3/27/2018 | 5 | 100 | |

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

**Acres of Grading (Grading Phase): 4.31**

**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 |
|---|---|---|---|---|---|
| Grading | Crawler Tractors | 2 | 6.00 | 212 | 0.43 |
| Grading | Excavators | 2 | 6.00 | 158 | 0.38 |
| Grading | Graders | 0 | 0.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 6.00 | 203 | 0.36 |
| Grading | Skid Steer Loaders | 1 | 6.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 1 | 6.00 | 97 | 0.37 |
| Grading | Trenchers | 1 | 2.00 | 78 | 0.50 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 8 | 24.00 | 10.00 | 5,000.00 | 10.80 | 7.30 | 28.00 | LD_Mix | HDT_Mix | MHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Grading - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.5784 | 30.9580 | 15.1885 | 0.0303 | | 1.4064 | 1.4064 | | 1.2939 | 1.2939 | | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **2.5784** | **30.9580** | **15.1885** | **0.0303** | **0.0879** | **1.4064** | **1.4942** | **0.0113** | **1.2939** | **1.3052** | | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0331 | 13.3543 | 5.0483 | 0.0367 | 57.0717 | 0.3475 | 57.4193 | 6.1846 | 0.3325 | 6.5171 | | 3,822.9686 | 3,822.9686 | 0.0756 | | 3,824.8574 |
| Vendor | 0.0620 | 1.4160 | 0.4273 | 2.7300e-003 | 1.1415 | 0.0134 | 1.1549 | 0.1266 | 0.0128 | 0.1394 | | 291.8316 | 291.8316 | 0.0263 | | 292.4902 |
| Worker | 0.1274 | 0.0934 | 0.8840 | 2.0900e-003 | 4.0100 | 1.4500e-003 | 4.0115 | 0.4325 | 1.3400e-003 | 0.4339 | | 208.0124 | 208.0124 | 7.8500e-003 | | 208.2085 |
| **Total** | **1.2224** | **14.8638** | **6.3596** | **0.0416** | **62.2233** | **0.3624** | **62.5857** | **6.7437** | **0.3466** | **7.0903** | | **4,322.8125** | **4,322.8125** | **0.1098** | | **4,325.5561** |

## 3.3 Grading - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.5784 | 28.8402 | 15.1885 | 0.0303 | | 1.4064 | 1.4064 | | 1.2939 | 1.2939 | 0.0000 | 3,102.7189 | 3,102.7189 | 0.9507 | | 3,126.4856 |
| **Total** | **2.5784** | **28.8402** | **15.1885** | **0.0303** | **0.0395** | **1.4064** | **1.4459** | **5.0900e-003** | **1.2939** | **1.2990** | **0.0000** | **3,102.7189** | **3,102.7189** | **0.9507** | | **3,126.4856** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.0331 | 13.3543 | 5.0483 | 0.0367 | 36.0480 | 0.3475 | 36.3955 | 4.0822 | 0.3325 | 4.4147 | | 3,822.9686 | 3,822.9686 | 0.0756 | | 3,824.8574 |
| Vendor | 0.0620 | 1.4160 | 0.4273 | 2.7300e-003 | 0.7250 | 0.0134 | 0.7383 | 0.0849 | 0.0128 | 0.0977 | | 291.8316 | 291.8316 | 0.0263 | | 292.4902 |
| Worker | 0.1274 | 0.0934 | 0.8840 | 2.0900e-003 | 2.5309 | 1.4500e-003 | 2.5324 | 0.2846 | 1.3400e-003 | 0.2860 | | 208.0124 | 208.0124 | 7.8500e-003 | | 208.2085 |
| **Total** | **1.2224** | **14.8638** | **6.3596** | **0.0416** | **39.3039** | **0.3624** | **39.6662** | **4.4517** | **0.3466** | **4.7983** | | **4,322.8125** | **4,322.8125** | **0.1098** | | **4,325.5561** |

## 3.3 Grading - 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 | | | | | 0.0879 | 0.0000 | 0.0879 | 0.0113 | 0.0000 | 0.0113 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2660 | 27.0254 | 14.6860 | 0.0303 | | 1.1961 | 1.1961 | | 1.1004 | 1.1004 | | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **2.2660** | **27.0254** | **14.6860** | **0.0303** | **0.0879** | **1.1961** | **1.2839** | **0.0113** | **1.1004** | **1.1117** | | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8947 | 12.0412 | 4.3276 | 0.0366 | 35.1501 | 0.2924 | 35.4425 | 3.8611 | 0.2797 | 4.1408 | | 3,809.5833 | 3,809.5833 | 0.0646 | | 3,811.1986 |
| Vendor | 0.0538 | 1.3198 | 0.3860 | 2.7200e-003 | 1.1415 | 0.0105 | 1.1520 | 0.1266 | 0.0100 | 0.1366 | | 290.6979 | 290.6979 | 0.0252 | | 291.3268 |
| Worker | 0.1154 | 0.0826 | 0.7793 | 2.0300e-003 | 4.0100 | 1.4200e-003 | 4.0115 | 0.4325 | 1.3100e-003 | 0.4338 | | 202.1586 | 202.1586 | 7.0100e-003 | | 202.3337 |
| **Total** | **1.0638** | **13.4436** | **5.4929** | **0.0413** | **40.3017** | **0.3043** | **40.6060** | **4.4202** | **0.2910** | **4.7112** | | **4,302.4398** | **4,302.4398** | **0.0968** | | **4,304.8591** |

## 3.3 Grading - 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 | | | | | 0.0395 | 0.0000 | 0.0395 | 5.0900e-003 | 0.0000 | 5.0900e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.2660 | 25.2936 | 14.6860 | 0.0303 | | 1.1961 | 1.1961 | | 1.1004 | 1.1004 | 0.0000 | 3,052.2246 | 3,052.2246 | 0.9502 | | 3,075.9796 |
| **Total** | **2.2660** | **25.2936** | **14.6860** | **0.0303** | **0.0395** | **1.1961** | **1.2356** | **5.0900e-003** | **1.1004** | **1.1055** | **0.0000** | **3,052.2246** | **3,052.2246** | **0.9502** | | **3,075.9796** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.8947 | 12.0412 | 4.3276 | 0.0366 | 22.2646 | 0.2924 | 22.5570 | 2.5726 | 0.2797 | 2.8523 | | 3,809.5833 | 3,809.5833 | 0.0646 | | 3,811.1986 |
| Vendor | 0.0538 | 1.3198 | 0.3860 | 2.7200e-003 | 0.7250 | 0.0105 | 0.7354 | 0.0849 | 0.0100 | 0.0949 | | 290.6979 | 290.6979 | 0.0252 | | 291.3268 |
| Worker | 0.1154 | 0.0826 | 0.7793 | 2.0300e-003 | 2.5309 | 1.4200e-003 | 2.5323 | 0.2846 | 1.3100e-003 | 0.2859 | | 202.1586 | 202.1586 | 7.0100e-003 | | 202.3337 |
| **Total** | **1.0638** | **13.4436** | **5.4929** | **0.0413** | **25.5205** | **0.3043** | **25.8247** | **2.9421** | **0.2910** | **3.2331** | | **4,302.4398** | **4,302.4398** | **0.0968** | | **4,304.8591** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| Unmitigated | 4.0196 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |

## 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

### 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 | 4.0177 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.8300e-003 | 1.8000e-004 | 0.0194 | 0.0000 | | 7.0000e-005 | 7.0000e-005 | | 7.0000e-005 | 7.0000e-005 | | 0.0411 | 0.0411 | 1.1000e-004 | | 0.0439 |
| **Total** | **4.0196** | **1.8000e-004** | **0.0194** | **0.0000** | | **7.0000e-005** | **7.0000e-005** | | **7.0000e-005** | **7.0000e-005** | | **0.0411** | **0.0411** | **1.1000e-004** | | **0.0439** |

## 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**

| 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

# Mission Bay; Mission Bay Drive Segment - Mitigated

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.32 | 1000sqft | 0.58 | 25,320.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - chain saw

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - project design features. All equipment over 75 HP Tier 4 Interim

Grading - Data provided by applicant.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12660 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 37980 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 4.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Annual

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblConstructionPhase | NumDays | 1.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConsumerProducts | ROG_EF | 2.14E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 1E-13 |
| tblConsumerProducts | ROG_EF_PesticidesFertilizers | 5.152E-08 | 0 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblGrading | AcresOfGrading | 0.00 | 7.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.29 | 0.29 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cranes |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Annual

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 31.40 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 325.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 60.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,855,250.00 | 0.00 |

# 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 | | | | | |
| 2018 | 0.0197 | 0.2039 | 0.1440 | 3.8000e-004 | 0.0115 | 8.7200e-003 | 0.0202 | 2.2800e-003 | 8.4900e-003 | 0.0108 | 0.0000 | 34.9205 | 34.9205 | 4.1200e-003 | 0.0000 | 35.0236 |
| **Maximum** | **0.0197** | **0.2039** | **0.1440** | **3.8000e-004** | **0.0115** | **8.7200e-003** | **0.0202** | **2.2800e-003** | **8.4900e-003** | **0.0108** | **0.0000** | **34.9205** | **34.9205** | **4.1200e-003** | **0.0000** | **35.0236** |

### 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 | 6.9200e-003 | 0.1340 | 0.1559 | 3.8000e-004 | 8.6900e-003 | 5.6000e-004 | 9.2600e-003 | 1.9800e-003 | 5.5000e-004 | 2.5400e-003 | 0.0000 | 34.9205 | 34.9205 | 4.1200e-003 | 0.0000 | 35.0235 |
| **Maximum** | **6.9200e-003** | **0.1340** | **0.1559** | **3.8000e-004** | **8.6900e-003** | **5.6000e-004** | **9.2600e-003** | **1.9800e-003** | **5.5000e-004** | **2.5400e-003** | **0.0000** | **34.9205** | **34.9205** | **4.1200e-003** | **0.0000** | **35.0235** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **64.94** | **34.29** | **-8.22** | **0.00** | **24.17** | **93.58** | **54.14** | **13.16** | **93.52** | **76.44** | **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** | **3-1-2018** | **5-31-2018** | 0.2294 | 0.1440 |
| | | **Highest** | 0.2294 | 0.1440 |

## 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 | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 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 | 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** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

## 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 | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 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 | 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** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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**

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Vegetation Clearing | Site Preparation | 3/1/2018 | 3/3/2018 | 5 | 2 | |
| 2 | Pre-Maintenance Pumping | Site Preparation | 3/4/2018 | 3/22/2018 | 5 | 14 | |
| 3 | Pump Use | Site Preparation | 3/23/2018 | 3/27/2018 | 5 | 3 | |
| 4 | Maintenance Activities | Grading | 3/23/2018 | 4/11/2018 | 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: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Annual

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Vegetation Clearing | Concrete/Industrial Saws | 4 | 8.00 | 9 | 0.73 |
| Vegetation Clearing | Graders | 0 | 0.00 | 187 | 0.41 |
| Vegetation Clearing | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pre-Maintenance Pumping | Graders | 0 | 0.00 | 187 | 0.41 |
| Pre-Maintenance Pumping | Pumps | 2 | 8.00 | 84 | 0.74 |
| Pre-Maintenance Pumping | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vegetation Clearing | 4 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pre-Maintenance Pumping | 2 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 60.00 | 6.00 | 325.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Vegetation Clearing - 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 | | | | | 5.3000e-004 | 0.0000 | 5.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **5.3000e-004** | **0.0000** | **5.3000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.4000e-004 | 0.0000 | 2.4000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **2.4000e-004** | **0.0000** | **2.4000e-004** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.3 Pre-Maintenance Pumping - 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 | | | | | 3.7100e-003 | 0.0000 | 3.7100e-003 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.4400e-003 | 0.0585 | 0.0533 | 9.0000e-005 | | 3.8700e-003 | 3.8700e-003 | | 3.8700e-003 | 3.8700e-003 | 0.0000 | 7.9129 | 7.9129 | 6.0000e-004 | 0.0000 | 7.9279 |
| **Total** | **7.4400e-003** | **0.0585** | **0.0533** | **9.0000e-005** | **3.7100e-003** | **3.8700e-003** | **7.5800e-003** | **4.0000e-004** | **3.8700e-003** | **4.2700e-003** | **0.0000** | **7.9129** | **7.9129** | **6.0000e-004** | **0.0000** | **7.9279** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.6700e-003 | 0.0000 | 1.6700e-003 | 1.8000e-004 | 0.0000 | 1.8000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.6900e-003 | 0.0329 | 0.0568 | 9.0000e-005 | | 1.2000e-004 | 1.2000e-004 | | 1.2000e-004 | 1.2000e-004 | 0.0000 | 7.9129 | 7.9129 | 6.0000e-004 | 0.0000 | 7.9279 |
| **Total** | **1.6900e-003** | **0.0329** | **0.0568** | **9.0000e-005** | **1.6700e-003** | **1.2000e-004** | **1.7900e-003** | **1.8000e-004** | **1.2000e-004** | **3.0000e-004** | **0.0000** | **7.9129** | **7.9129** | **6.0000e-004** | **0.0000** | **7.9279** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.4 Pump Use - 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 | | | | | 8.0000e-004 | 0.0000 | 8.0000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **8.0000e-004** | **1.8600e-003** | **2.6600e-003** | **9.0000e-005** | **1.8600e-003** | **1.9500e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 3.6000e-004 | 0.0000 | 3.6000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.1000e-004 | 0.0158 | 0.0274 | 4.0000e-005 | | 6.0000e-005 | 6.0000e-005 | | 6.0000e-005 | 6.0000e-005 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **8.1000e-004** | **0.0158** | **0.0274** | **4.0000e-005** | **3.6000e-004** | **6.0000e-005** | **4.2000e-004** | **4.0000e-005** | **6.0000e-005** | **1.0000e-004** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.5 Maintenance Activities - 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 | 5.1800e-003 | 0.0575 | 0.0389 | 7.0000e-005 | | 2.7200e-003 | 2.7200e-003 | | 2.5000e-003 | 2.5000e-003 | 0.0000 | 6.0213 | 6.0213 | 1.8700e-003 | 0.0000 | 6.0682 |
| **Total** | **5.1800e-003** | **0.0575** | **0.0389** | **7.0000e-005** | **0.0000** | **2.7200e-003** | **2.7200e-003** | **0.0000** | **2.5000e-003** | **2.5000e-003** | **0.0000** | **6.0213** | **6.0213** | **1.8700e-003** | **0.0000** | **6.0682** |

## 3.5 Maintenance Activities - 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 | 1.5100e-003 | 0.0528 | 0.0110 | 1.3000e-004 | 2.7800e-003 | 2.1000e-004 | 2.9900e-003 | 7.6000e-004 | 2.0000e-004 | 9.6000e-004 | 0.0000 | 12.8055 | 12.8055 | 1.1600e-003 | 0.0000 | 12.8344 |
| Vendor | 2.2000e-004 | 5.6100e-003 | 1.5400e-003 | 1.0000e-005 | 2.8000e-004 | 4.0000e-005 | 3.2000e-004 | 8.0000e-005 | 4.0000e-005 | 1.2000e-004 | 0.0000 | 1.1242 | 1.1242 | 9.0000e-005 | 0.0000 | 1.1265 |
| Worker | 1.8000e-003 | 1.4200e-003 | 0.0136 | 4.0000e-005 | 3.3700e-003 | 2.0000e-005 | 3.3900e-003 | 8.9000e-004 | 2.0000e-005 | 9.2000e-004 | 0.0000 | 3.2415 | 3.2415 | 1.1000e-004 | 0.0000 | 3.2443 |
| **Total** | **3.5300e-003** | **0.0598** | **0.0262** | **1.8000e-004** | **6.4300e-003** | **2.7000e-004** | **6.7000e-003** | **1.7300e-003** | **2.6000e-004** | **2.0000e-003** | **0.0000** | **17.1712** | **17.1712** | **1.3600e-003** | **0.0000** | **17.2052** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 8.9000e-004 | 0.0255 | 0.0455 | 7.0000e-005 | | 1.1000e-004 | 1.1000e-004 | | 1.1000e-004 | 1.1000e-004 | 0.0000 | 6.0213 | 6.0213 | 1.8700e-003 | 0.0000 | 6.0682 |
| **Total** | **8.9000e-004** | **0.0255** | **0.0455** | **7.0000e-005** | **0.0000** | **1.1000e-004** | **1.1000e-004** | **0.0000** | **1.1000e-004** | **1.1000e-004** | **0.0000** | **6.0213** | **6.0213** | **1.8700e-003** | **0.0000** | **6.0682** |

### 3.5 Maintenance Activities - 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 | 1.5100e-003 | 0.0528 | 0.0110 | 1.3000e-004 | 2.7800e-003 | 2.1000e-004 | 2.9900e-003 | 7.6000e-004 | 2.0000e-004 | 9.6000e-004 | 0.0000 | 12.8055 | 12.8055 | 1.1600e-003 | 0.0000 | 12.8344 |
| Vendor | 2.2000e-004 | 5.6100e-003 | 1.5400e-003 | 1.0000e-005 | 2.8000e-004 | 4.0000e-005 | 3.2000e-004 | 8.0000e-005 | 4.0000e-005 | 1.2000e-004 | 0.0000 | 1.1242 | 1.1242 | 9.0000e-005 | 0.0000 | 1.1265 |
| Worker | 1.8000e-003 | 1.4200e-003 | 0.0136 | 4.0000e-005 | 3.3700e-003 | 2.0000e-005 | 3.3900e-003 | 8.9000e-004 | 2.0000e-005 | 9.2000e-004 | 0.0000 | 3.2415 | 3.2415 | 1.1000e-004 | 0.0000 | 3.2443 |
| **Total** | **3.5300e-003** | **0.0598** | **0.0262** | **1.8000e-004** | **6.4300e-003** | **2.7000e-004** | **6.7000e-003** | **1.7300e-003** | **2.6000e-004** | **2.0000e-003** | **0.0000** | **17.1712** | **17.1712** | **1.3600e-003** | **0.0000** | **17.2052** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| Unmitigated | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 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 | 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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| **Total** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

**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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| **Total** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Mission Bay; Mission Bay Drive Segment

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.32 | 1000sqft | 0.58 | 25,320.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Bay; Mission Bay Drive Segment - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - chain saw

Trips and VMT - Applicant provided information

Grading - Data provided by applicant.

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - project design features

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12660 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 37980 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 4.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 1.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConsumerProducts | ROG_EF | 2.14E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 1E-13 |
| tblConsumerProducts | ROG_EF_PesticidesFertilizers | 5.152E-08 | 0 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblGrading | AcresOfGrading | 0.00 | 7.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 31.40 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 325.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 60.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,855,250.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0198 | 0.2042 | 0.1441 | 3.8000e-004 | 0.0115 | 8.7400e-003 | 0.0202 | 2.2800e-003 | 8.5000e-003 | 0.0108 | 0.0000 | 34.9412 | 34.9412 | 4.1300e-003 | 0.0000 | 35.0444 |
| **Maximum** | **0.0198** | **0.2042** | **0.1441** | **3.8000e-004** | **0.0115** | **8.7400e-003** | **0.0202** | **2.2800e-003** | **8.5000e-003** | **0.0108** | **0.0000** | **34.9412** | **34.9412** | **4.1300e-003** | **0.0000** | **35.0444** |

### 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 | 0.0198 | 0.2042 | 0.1441 | 3.8000e-004 | 8.6900e-003 | 8.7400e-003 | 0.0174 | 1.9800e-003 | 8.5000e-003 | 0.0105 | 0.0000 | 34.9412 | 34.9412 | 4.1300e-003 | 0.0000 | 35.0444 |
| **Maximum** | **0.0198** | **0.2042** | **0.1441** | **3.8000e-004** | **8.6900e-003** | **8.7400e-003** | **0.0174** | **1.9800e-003** | **8.5000e-003** | **0.0105** | **0.0000** | **34.9412** | **34.9412** | **4.1300e-003** | **0.0000** | **35.0444** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **24.17** | **0.00** | **13.71** | **13.16** | **0.00** | **2.78** | **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 | 3-1-2018 | 5-31-2018 | 0.2297 | 0.2297 |
| | | Highest | 0.2297 | 0.2297 |

## 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 | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 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 | 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** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

## 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 | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 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 | 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** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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**

Mission Bay; Mission Bay Drive Segment - San Diego County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Vegetation Clearing | Site Preparation | 3/1/2018 | 3/3/2018 | 5 | 2 | |
| 2 | Pre-Maintenance Pumping | Site Preparation | 3/4/2018 | 3/22/2018 | 5 | 14 | |
| 3 | Pump Use | Site Preparation | 3/23/2018 | 3/27/2018 | 5 | 3 | |
| 4 | Maintenance Activities | Grading | 3/23/2018 | 4/11/2018 | 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: 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 |
|---|---|---|---|---|---|
| Vegetation Clearing | Concrete/Industrial Saws | 4 | 8.00 | 9 | 0.73 |
| Vegetation Clearing | Graders | 0 | 0.00 | 187 | 0.41 |
| Vegetation Clearing | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pre-Maintenance Pumping | Graders | 0 | 0.00 | 187 | 0.41 |
| Pre-Maintenance Pumping | Pumps | 2 | 8.00 | 84 | 0.74 |
| Pre-Maintenance Pumping | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vegetation Clearing | 4 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pre-Maintenance Pumping | 2 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 60.00 | 6.00 | 325.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Vegetation Clearing - 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 | | | | | 5.3000e-004 | 0.0000 | 5.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **5.3000e-004** | **0.0000** | **5.3000e-004** | **6.0000e-005** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.4000e-004 | 0.0000 | 2.4000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **2.4000e-004** | **0.0000** | **2.4000e-004** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.3 Pre-Maintenance Pumping - 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 | | | | | 3.7100e-003 | 0.0000 | 3.7100e-003 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.4400e-003 | 0.0585 | 0.0533 | 9.0000e-005 | | 3.8700e-003 | 3.8700e-003 | | 3.8700e-003 | 3.8700e-003 | 0.0000 | 7.9129 | 7.9129 | 6.0000e-004 | 0.0000 | 7.9279 |
| **Total** | **7.4400e-003** | **0.0585** | **0.0533** | **9.0000e-005** | **3.7100e-003** | **3.8700e-003** | **7.5800e-003** | **4.0000e-004** | **3.8700e-003** | **4.2700e-003** | **0.0000** | **7.9129** | **7.9129** | **6.0000e-004** | **0.0000** | **7.9279** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.6700e-003 | 0.0000 | 1.6700e-003 | 1.8000e-004 | 0.0000 | 1.8000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.4400e-003 | 0.0585 | 0.0533 | 9.0000e-005 | | 3.8700e-003 | 3.8700e-003 | | 3.8700e-003 | 3.8700e-003 | 0.0000 | 7.9129 | 7.9129 | 6.0000e-004 | 0.0000 | 7.9279 |
| **Total** | **7.4400e-003** | **0.0585** | **0.0533** | **9.0000e-005** | **1.6700e-003** | **3.8700e-003** | **5.5400e-003** | **1.8000e-004** | **3.8700e-003** | **4.0500e-003** | **0.0000** | **7.9129** | **7.9129** | **6.0000e-004** | **0.0000** | **7.9279** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.4 Pump Use - 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 | | | | | 8.0000e-004 | 0.0000 | 8.0000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **8.0000e-004** | **1.8600e-003** | **2.6600e-003** | **9.0000e-005** | **1.8600e-003** | **1.9500e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 3.6000e-004 | 0.0000 | 3.6000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **3.6000e-004** | **1.8600e-003** | **2.2200e-003** | **4.0000e-005** | **1.8600e-003** | **1.9000e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.5 Maintenance Activities - 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 | 5.2100e-003 | 0.0578 | 0.0390 | 7.0000e-005 | | 2.7300e-003 | 2.7300e-003 | | 2.5100e-003 | 2.5100e-003 | 0.0000 | 6.0420 | 6.0420 | 1.8800e-003 | 0.0000 | 6.0890 |
| **Total** | **5.2100e-003** | **0.0578** | **0.0390** | **7.0000e-005** | **0.0000** | **2.7300e-003** | **2.7300e-003** | **0.0000** | **2.5100e-003** | **2.5100e-003** | **0.0000** | **6.0420** | **6.0420** | **1.8800e-003** | **0.0000** | **6.0890** |

## 3.5 Maintenance Activities - 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 | 1.5100e-003 | 0.0528 | 0.0110 | 1.3000e-004 | 2.7800e-003 | 2.1000e-004 | 2.9900e-003 | 7.6000e-004 | 2.0000e-004 | 9.6000e-004 | 0.0000 | 12.8055 | 12.8055 | 1.1600e-003 | 0.0000 | 12.8344 |
| Vendor | 2.2000e-004 | 5.6100e-003 | 1.5400e-003 | 1.0000e-005 | 2.8000e-004 | 4.0000e-005 | 3.2000e-004 | 8.0000e-005 | 4.0000e-005 | 1.2000e-004 | 0.0000 | 1.1242 | 1.1242 | 9.0000e-005 | 0.0000 | 1.1265 |
| Worker | 1.8000e-003 | 1.4200e-003 | 0.0136 | 4.0000e-005 | 3.3700e-003 | 2.0000e-005 | 3.3900e-003 | 8.9000e-004 | 2.0000e-005 | 9.2000e-004 | 0.0000 | 3.2415 | 3.2415 | 1.1000e-004 | 0.0000 | 3.2443 |
| **Total** | **3.5300e-003** | **0.0598** | **0.0262** | **1.8000e-004** | **6.4300e-003** | **2.7000e-004** | **6.7000e-003** | **1.7300e-003** | **2.6000e-004** | **2.0000e-003** | **0.0000** | **17.1712** | **17.1712** | **1.3600e-003** | **0.0000** | **17.2052** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 5.2100e-003 | 0.0578 | 0.0390 | 7.0000e-005 | | 2.7300e-003 | 2.7300e-003 | | 2.5100e-003 | 2.5100e-003 | 0.0000 | 6.0420 | 6.0420 | 1.8800e-003 | 0.0000 | 6.0890 |
| **Total** | **5.2100e-003** | **0.0578** | **0.0390** | **7.0000e-005** | **0.0000** | **2.7300e-003** | **2.7300e-003** | **0.0000** | **2.5100e-003** | **2.5100e-003** | **0.0000** | **6.0420** | **6.0420** | **1.8800e-003** | **0.0000** | **6.0890** |

### 3.5 Maintenance Activities - 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 | 1.5100e-003 | 0.0528 | 0.0110 | 1.3000e-004 | 2.7800e-003 | 2.1000e-004 | 2.9900e-003 | 7.6000e-004 | 2.0000e-004 | 9.6000e-004 | 0.0000 | 12.8055 | 12.8055 | 1.1600e-003 | 0.0000 | 12.8344 |
| Vendor | 2.2000e-004 | 5.6100e-003 | 1.5400e-003 | 1.0000e-005 | 2.8000e-004 | 4.0000e-005 | 3.2000e-004 | 8.0000e-005 | 4.0000e-005 | 1.2000e-004 | 0.0000 | 1.1242 | 1.1242 | 9.0000e-005 | 0.0000 | 1.1265 |
| Worker | 1.8000e-003 | 1.4200e-003 | 0.0136 | 4.0000e-005 | 3.3700e-003 | 2.0000e-005 | 3.3900e-003 | 8.9000e-004 | 2.0000e-005 | 9.2000e-004 | 0.0000 | 3.2415 | 3.2415 | 1.1000e-004 | 0.0000 | 3.2443 |
| **Total** | **3.5300e-003** | **0.0598** | **0.0262** | **1.8000e-004** | **6.4300e-003** | **2.7000e-004** | **6.7000e-003** | **1.7300e-003** | **2.6000e-004** | **2.0000e-003** | **0.0000** | **17.1712** | **17.1712** | **1.3600e-003** | **0.0000** | **17.2052** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| Unmitigated | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 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 | 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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| **Total** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

**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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| **Total** | **2.0000e-005** | **0.0000** | **2.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Mission Bay; Mission Bay Drive Segment - Mitigated

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.32 | 1000sqft | 0.58 | 25,320.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - chain saw

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - project design features. All equipment over 75 HP Tier 4 Interim

Grading - Data provided by applicant.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12660 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 37980 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 4.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Summer

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblConstructionPhase | NumDays | 1.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConsumerProducts | ROG_EF | 2.14E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 1E-13 |
| tblConsumerProducts | ROG_EF_PesticidesFertilizers | 5.152E-08 | 0 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblGrading | AcresOfGrading | 0.00 | 7.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.29 | 0.29 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cranes |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 31.40 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 325.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 60.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,855,250.00 | 0.00 |

# 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 | | | | | |
| 2018 | 3.6322 | 35.3605 | 26.4620 | 0.0648 | 1.4694 | 1.6700 | 3.1394 | 0.3109 | 1.6372 | 1.9480 | 0.0000 | 6,499.7764 | 6,499.7764 | 0.7189 | 0.0000 | 6,517.7496 |
| **Maximum** | **3.6322** | **35.3605** | **26.4620** | **0.0648** | **1.4694** | **1.6700** | **3.1394** | **0.3109** | **1.6372** | **1.9480** | **0.0000** | **6,499.7764** | **6,499.7764** | **0.7189** | **0.0000** | **6,517.7496** |

### 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 | 1.1691 | 22.5629 | 28.5392 | 0.0648 | 1.1778 | 0.0937 | 1.2715 | 0.2794 | 0.0919 | 0.3713 | 0.0000 | 6,499.7764 | 6,499.7764 | 0.7189 | 0.0000 | 6,517.7496 |
| **Maximum** | **1.1691** | **22.5629** | **28.5392** | **0.0648** | **1.1778** | **0.0937** | **1.2715** | **0.2794** | **0.0919** | **0.3713** | **0.0000** | **6,499.7764** | **6,499.7764** | **0.7189** | **0.0000** | **6,517.7496** |

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **67.81** | **36.19** | **-7.85** | **0.00** | **19.85** | **94.39** | **59.50** | **10.13** | **94.39** | **80.94** | **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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

### 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Vegetation Clearing | Site Preparation | 3/1/2018 | 3/3/2018 | 5 | 2 | |
| 2 | Pre-Maintenance Pumping | Site Preparation | 3/4/2018 | 3/22/2018 | 5 | 14 | |
| 3 | Pump Use | Site Preparation | 3/23/2018 | 3/27/2018 | 5 | 3 | |
| 4 | Maintenance Activities | Grading | 3/23/2018 | 4/11/2018 | 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: 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 |
|---|---|---|---|---|---|
| Vegetation Clearing | Concrete/Industrial Saws | 4 | 8.00 | 9 | 0.73 |
| Vegetation Clearing | Graders | 0 | 0.00 | 187 | 0.41 |
| Vegetation Clearing | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pre-Maintenance Pumping | Graders | 0 | 0.00 | 187 | 0.41 |
| Pre-Maintenance Pumping | Pumps | 2 | 8.00 | 84 | 0.74 |
| Pre-Maintenance Pumping | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vegetation Clearing | 4 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pre-Maintenance Pumping | 2 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 60.00 | 6.00 | 325.00 | 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

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Vegetation Clearing - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.5303** | **0.0000** | **0.5303** | **0.0573** | **0.0000** | **0.0573** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.2386** | **0.0000** | **0.2386** | **0.0258** | **0.0000** | **0.0258** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Pre-Maintenance Pumping - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0634 | 8.3495 | 7.6106 | 0.0132 | | 0.5525 | 0.5525 | | 0.5525 | 0.5525 | | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **1.0634** | **8.3495** | **7.6106** | **0.0132** | **0.5303** | **0.5525** | **1.0828** | **0.0573** | **0.5525** | **0.6098** | | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2412 | 4.6922 | 8.1127 | 0.0132 | | 0.0175 | 0.0175 | | 0.0175 | 0.0175 | 0.0000 | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **0.2412** | **4.6922** | **8.1127** | **0.0132** | **0.2386** | **0.0175** | **0.2562** | **0.0258** | **0.0175** | **0.0433** | **0.0000** | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.4 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.5 Maintenance Activities - 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 | 0.7406 | 8.2157 | 5.5519 | 9.4200e-003 | | 0.3880 | 0.3880 | | 0.3570 | 0.3570 | | 948.1919 | 948.1919 | 0.2952 | | 955.5716 |
| **Total** | **0.7406** | **8.2157** | **5.5519** | **9.4200e-003** | **0.0000** | **0.3880** | **0.3880** | **0.0000** | **0.3570** | **0.3570** | | **948.1919** | **948.1919** | **0.2952** | | **955.5716** |

## 3.5 Maintenance Activities - 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 | 0.2125 | 7.3839 | 1.5229 | 0.0187 | 0.4057 | 0.0290 | 0.4347 | 0.1112 | 0.0278 | 0.1390 | | 2,030.6802 | 2,030.6802 | 0.1790 | | 2,035.1553 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2554 | 0.1839 | 2.0540 | 5.4100e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 538.3347 | 538.3347 | 0.0184 | | 538.7953 |
| **Total** | **0.4988** | **8.3583** | **3.7862** | **0.0258** | **0.9392** | **0.0388** | **0.9779** | **0.2536** | **0.0370** | **0.2906** | | **2,747.9289** | **2,747.9289** | **0.2116** | | **2,753.2190** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1276 | 3.6471 | 6.4994 | 9.4200e-003 | | 0.0155 | 0.0155 | | 0.0155 | 0.0155 | 0.0000 | 948.1919 | 948.1919 | 0.2952 | | 955.5716 |
| **Total** | **0.1276** | **3.6471** | **6.4994** | **9.4200e-003** | **0.0000** | **0.0155** | **0.0155** | **0.0000** | **0.0155** | **0.0155** | **0.0000** | **948.1919** | **948.1919** | **0.2952** | | **955.5716** |

### 3.5 Maintenance Activities - 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 | 0.2125 | 7.3839 | 1.5229 | 0.0187 | 0.4057 | 0.0290 | 0.4347 | 0.1112 | 0.0278 | 0.1390 | | 2,030.6802 | 2,030.6802 | 0.1790 | | 2,035.1553 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2554 | 0.1839 | 2.0540 | 5.4100e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 538.3347 | 538.3347 | 0.0184 | | 538.7953 |
| **Total** | **0.4988** | **8.3583** | **3.7862** | **0.0258** | **0.9392** | **0.0388** | **0.9779** | **0.2536** | **0.0370** | **0.2906** | | **2,747.9289** | **2,747.9289** | **0.2116** | | **2,753.2190** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| Unmitigated | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

**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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

## 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**

| 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

# Mission Bay; Mission Bay Drive Segment

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.32 | 1000sqft | 0.58 | 25,320.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Bay; Mission Bay Drive Segment - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - chain saw

Trips and VMT - Applicant provided information

Grading - Data provided by applicant.

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - project design features

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12660 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 37980 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 4.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 1.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConsumerProducts | ROG_EF | 2.14E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 1E-13 |
| tblConsumerProducts | ROG_EF_PesticidesFertilizers | 5.152E-08 | 0 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblGrading | AcresOfGrading | 0.00 | 7.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 31.40 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 325.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 60.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,855,250.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.6357 | 35.3995 | 26.4801 | 0.0648 | 1.4694 | 1.6718 | 3.1412 | 0.3109 | 1.6389 | 1.9497 | 0.0000 | 6,503.0324 | 6,503.0324 | 0.7200 | 0.0000 | 6,521.0309 |
| **Maximum** | **3.6357** | **35.3995** | **26.4801** | **0.0648** | **1.4694** | **1.6718** | **3.1412** | **0.3109** | **1.6389** | **1.9497** | **0.0000** | **6,503.0324** | **6,503.0324** | **0.7200** | **0.0000** | **6,521.0309** |

### 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 | 3.6357 | 35.3995 | 26.4801 | 0.0648 | 1.1778 | 1.6718 | 2.8496 | 0.2794 | 1.6389 | 1.9182 | 0.0000 | 6,503.0324 | 6,503.0324 | 0.7200 | 0.0000 | 6,521.0309 |
| **Maximum** | **3.6357** | **35.3995** | **26.4801** | **0.0648** | **1.1778** | **1.6718** | **2.8496** | **0.2794** | **1.6389** | **1.9182** | **0.0000** | **6,503.0324** | **6,503.0324** | **0.7200** | **0.0000** | **6,521.0309** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **19.85** | **0.00** | **9.28** | **10.13** | **0.00** | **1.62** | **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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

### 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Vegetation Clearing | Site Preparation | 3/1/2018 | 3/3/2018 | 5 | 2 | |
| 2 | Pre-Maintenance Pumping | Site Preparation | 3/4/2018 | 3/22/2018 | 5 | 14 | |
| 3 | Pump Use | Site Preparation | 3/23/2018 | 3/27/2018 | 5 | 3 | |
| 4 | Maintenance Activities | Grading | 3/23/2018 | 4/11/2018 | 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: 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 |
|---|---|---|---|---|---|
| Vegetation Clearing | Concrete/Industrial Saws | 4 | 8.00 | 9 | 0.73 |
| Vegetation Clearing | Graders | 0 | 0.00 | 187 | 0.41 |
| Vegetation Clearing | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pre-Maintenance Pumping | Graders | 0 | 0.00 | 187 | 0.41 |
| Pre-Maintenance Pumping | Pumps | 2 | 8.00 | 84 | 0.74 |
| Pre-Maintenance Pumping | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vegetation Clearing | 4 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pre-Maintenance Pumping | 2 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 60.00 | 6.00 | 325.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Vegetation Clearing - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.5303** | **0.0000** | **0.5303** | **0.0573** | **0.0000** | **0.0573** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.2386** | **0.0000** | **0.2386** | **0.0258** | **0.0000** | **0.0258** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Pre-Maintenance Pumping - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0634 | 8.3495 | 7.6106 | 0.0132 | | 0.5525 | 0.5525 | | 0.5525 | 0.5525 | | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **1.0634** | **8.3495** | **7.6106** | **0.0132** | **0.5303** | **0.5525** | **1.0828** | **0.0573** | **0.5525** | **0.6098** | | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0634 | 8.3495 | 7.6106 | 0.0132 | | 0.5525 | 0.5525 | | 0.5525 | 0.5525 | 0.0000 | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **1.0634** | **8.3495** | **7.6106** | **0.0132** | **0.2386** | **0.5525** | **0.7912** | **0.0258** | **0.5525** | **0.5783** | **0.0000** | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.4 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.5 Maintenance Activities - 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 | 0.7441 | 8.2548 | 5.5701 | 9.4500e-003 | | 0.3898 | 0.3898 | | 0.3587 | 0.3587 | | 951.4480 | 951.4480 | 0.2962 | | 958.8530 |
| **Total** | **0.7441** | **8.2548** | **5.5701** | **9.4500e-003** | **0.0000** | **0.3898** | **0.3898** | **0.0000** | **0.3587** | **0.3587** | | **951.4480** | **951.4480** | **0.2962** | | **958.8530** |

## 3.5 Maintenance Activities - 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 | 0.2125 | 7.3839 | 1.5229 | 0.0187 | 0.4057 | 0.0290 | 0.4347 | 0.1112 | 0.0278 | 0.1390 | | 2,030.6802 | 2,030.6802 | 0.1790 | | 2,035.1553 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2554 | 0.1839 | 2.0540 | 5.4100e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 538.3347 | 538.3347 | 0.0184 | | 538.7953 |
| **Total** | **0.4988** | **8.3583** | **3.7862** | **0.0258** | **0.9392** | **0.0388** | **0.9779** | **0.2536** | **0.0370** | **0.2906** | | **2,747.9289** | **2,747.9289** | **0.2116** | | **2,753.2190** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7441 | 8.2548 | 5.5701 | 9.4500e-003 | | 0.3898 | 0.3898 | | 0.3587 | 0.3587 | 0.0000 | 951.4480 | 951.4480 | 0.2962 | | 958.8530 |
| **Total** | **0.7441** | **8.2548** | **5.5701** | **9.4500e-003** | **0.0000** | **0.3898** | **0.3898** | **0.0000** | **0.3587** | **0.3587** | **0.0000** | **951.4480** | **951.4480** | **0.2962** | | **958.8530** |

### 3.5 Maintenance Activities - 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 | 0.2125 | 7.3839 | 1.5229 | 0.0187 | 0.4057 | 0.0290 | 0.4347 | 0.1112 | 0.0278 | 0.1390 | | 2,030.6802 | 2,030.6802 | 0.1790 | | 2,035.1553 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2554 | 0.1839 | 2.0540 | 5.4100e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 538.3347 | 538.3347 | 0.0184 | | 538.7953 |
| **Total** | **0.4988** | **8.3583** | **3.7862** | **0.0258** | **0.9392** | **0.0388** | **0.9779** | **0.2536** | **0.0370** | **0.2906** | | **2,747.9289** | **2,747.9289** | **0.2116** | | **2,753.2190** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| Unmitigated | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

**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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

## 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**

| 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

# Mission Bay; Mission Bay Drive Segment - Mitigated

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.32 | 1000sqft | 0.58 | 25,320.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - chain saw

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - project design features. All equipment over 75 HP Tier 4 Interim

Grading - Data provided by applicant.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12660 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 37980 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 4.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, Winter

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |
| tblConstructionPhase | NumDays | 1.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConsumerProducts | ROG_EF | 2.14E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 1E-13 |
| tblConsumerProducts | ROG_EF_PesticidesFertilizers | 5.152E-08 | 0 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblGrading | AcresOfGrading | 0.00 | 7.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.29 | 0.29 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cranes |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 31.40 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 325.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 60.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,855,250.00 | 0.00 |

# 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 | | | | | |
| 2018 | 3.6727 | 35.4634 | 26.4931 | 0.0641 | 1.4694 | 1.6708 | 3.1402 | 0.3109 | 1.6379 | 1.9488 | 0.0000 | 6,428.6455 | 6,428.6455 | 0.7256 | 0.0000 | 6,446.7865 |
| **Maximum** | **3.6727** | **35.4634** | **26.4931** | **0.0641** | **1.4694** | **1.6708** | **3.1402** | **0.3109** | **1.6379** | **1.9488** | **0.0000** | **6,428.6455** | **6,428.6455** | **0.7256** | **0.0000** | **6,446.7865** |

### 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 | 1.2096 | 22.6658 | 28.5703 | 0.0641 | 1.1778 | 0.0945 | 1.2722 | 0.2794 | 0.0926 | 0.3720 | 0.0000 | 6,428.6455 | 6,428.6455 | 0.7256 | 0.0000 | 6,446.7865 |
| **Maximum** | **1.2096** | **22.6658** | **28.5703** | **0.0641** | **1.1778** | **0.0945** | **1.2722** | **0.2794** | **0.0926** | **0.3720** | **0.0000** | **6,428.6455** | **6,428.6455** | **0.7256** | **0.0000** | **6,446.7865** |

Mission Bay; Mission Bay Drive Segment - Mitigated - San Diego County, 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **67.06** | **36.09** | **-7.84** | **0.00** | **19.85** | **94.35** | **59.48** | **10.13** | **94.34** | **80.91** | **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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

### 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Vegetation Clearing | Site Preparation | 3/1/2018 | 3/3/2018 | 5 | 2 | |
| 2 | Pre-Maintenance Pumping | Site Preparation | 3/4/2018 | 3/22/2018 | 5 | 14 | |
| 3 | Pump Use | Site Preparation | 3/23/2018 | 3/27/2018 | 5 | 3 | |
| 4 | Maintenance Activities | Grading | 3/23/2018 | 4/11/2018 | 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: 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 |
|---|---|---|---|---|---|
| Vegetation Clearing | Concrete/Industrial Saws | 4 | 8.00 | 9 | 0.73 |
| Vegetation Clearing | Graders | 0 | 0.00 | 187 | 0.41 |
| Vegetation Clearing | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pre-Maintenance Pumping | Graders | 0 | 0.00 | 187 | 0.41 |
| Pre-Maintenance Pumping | Pumps | 2 | 8.00 | 84 | 0.74 |
| Pre-Maintenance Pumping | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vegetation Clearing | 4 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pre-Maintenance Pumping | 2 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 60.00 | 6.00 | 325.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Vegetation Clearing - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.5303** | **0.0000** | **0.5303** | **0.0573** | **0.0000** | **0.0573** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.2386** | **0.0000** | **0.2386** | **0.0258** | **0.0000** | **0.0258** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Pre-Maintenance Pumping - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0634 | 8.3495 | 7.6106 | 0.0132 | | 0.5525 | 0.5525 | | 0.5525 | 0.5525 | | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **1.0634** | **8.3495** | **7.6106** | **0.0132** | **0.5303** | **0.5525** | **1.0828** | **0.0573** | **0.5525** | **0.6098** | | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2412 | 4.6922 | 8.1127 | 0.0132 | | 0.0175 | 0.0175 | | 0.0175 | 0.0175 | 0.0000 | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **0.2412** | **4.6922** | **8.1127** | **0.0132** | **0.2386** | **0.0175** | **0.2562** | **0.0258** | **0.0175** | **0.0433** | **0.0000** | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.4 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.5 Maintenance Activities - 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 | 0.7406 | 8.2157 | 5.5519 | 9.4200e-003 | | 0.3880 | 0.3880 | | 0.3570 | 0.3570 | | 948.1919 | 948.1919 | 0.2952 | | 955.5716 |
| **Total** | **0.7406** | **8.2157** | **5.5519** | **9.4200e-003** | **0.0000** | **0.3880** | **0.3880** | **0.0000** | **0.3570** | **0.3570** | | **948.1919** | **948.1919** | **0.2952** | | **955.5716** |

## 3.5 Maintenance Activities - 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 | 0.2186 | 7.4628 | 1.6374 | 0.0184 | 0.4057 | 0.0297 | 0.4354 | 0.1112 | 0.0284 | 0.1396 | | 1,996.9829 | 1,996.9829 | 0.1857 | | 2,001.6256 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2885 | 0.2066 | 1.9484 | 5.0800e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 505.3964 | 505.3964 | 0.0175 | | 505.8342 |
| **Total** | **0.5393** | **8.4613** | **3.8173** | **0.0251** | **0.9392** | **0.0396** | **0.9787** | **0.2536** | **0.0377** | **0.2913** | | **2,676.7980** | **2,676.7980** | **0.2183** | | **2,682.2560** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1276 | 3.6471 | 6.4994 | 9.4200e-003 | | 0.0155 | 0.0155 | | 0.0155 | 0.0155 | 0.0000 | 948.1919 | 948.1919 | 0.2952 | | 955.5716 |
| **Total** | **0.1276** | **3.6471** | **6.4994** | **9.4200e-003** | **0.0000** | **0.0155** | **0.0155** | **0.0000** | **0.0155** | **0.0155** | **0.0000** | **948.1919** | **948.1919** | **0.2952** | | **955.5716** |

### 3.5 Maintenance Activities - 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 | 0.2186 | 7.4628 | 1.6374 | 0.0184 | 0.4057 | 0.0297 | 0.4354 | 0.1112 | 0.0284 | 0.1396 | | 1,996.9829 | 1,996.9829 | 0.1857 | | 2,001.6256 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2885 | 0.2066 | 1.9484 | 5.0800e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 505.3964 | 505.3964 | 0.0175 | | 505.8342 |
| **Total** | **0.5393** | **8.4613** | **3.8173** | **0.0251** | **0.9392** | **0.0396** | **0.9787** | **0.2536** | **0.0377** | **0.2913** | | **2,676.7980** | **2,676.7980** | **0.2183** | | **2,682.2560** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| Unmitigated | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

**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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

## 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**

| 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

# Mission Bay; Mission Bay Drive Segment

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 25.32 | 1000sqft | 0.58 | 25,320.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Bay; Mission Bay Drive Segment - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - chain saw

Trips and VMT - Applicant provided information

Grading - Data provided by applicant.

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - project design features

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 12660 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 37980 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 4.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 1.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblConsumerProducts | ROG_EF | 2.14E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 1E-13 |
| tblConsumerProducts | ROG_EF_PesticidesFertilizers | 5.152E-08 | 0 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.00 |
| tblGrading | AcresOfGrading | 0.00 | 7.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 31.40 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 325.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 5.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 60.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 5,855,250.00 | 0.00 |

## 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 | | | | | |
| 2018 | 3.6762 | 35.5025 | 26.5113 | 0.0641 | 1.4694 | 1.6726 | 3.1420 | 0.3109 | 1.6396 | 1.9505 | 0.0000 | 6,431.9015 | 6,431.9015 | 0.7267 | 0.0000 | 6,450.0679 |
| **Maximum** | **3.6762** | **35.5025** | **26.5113** | **0.0641** | **1.4694** | **1.6726** | **3.1420** | **0.3109** | **1.6396** | **1.9505** | **0.0000** | **6,431.9015** | **6,431.9015** | **0.7267** | **0.0000** | **6,450.0679** |

### 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 | 3.6762 | 35.5025 | 26.5113 | 0.0641 | 1.1778 | 1.6726 | 2.8504 | 0.2794 | 1.6396 | 1.9190 | 0.0000 | 6,431.9015 | 6,431.9015 | 0.7267 | 0.0000 | 6,450.0679 |
| **Maximum** | **3.6762** | **35.5025** | **26.5113** | **0.0641** | **1.1778** | **1.6726** | **2.8504** | **0.2794** | **1.6396** | **1.9190** | **0.0000** | **6,431.9015** | **6,431.9015** | **0.7267** | **0.0000** | **6,450.0679** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **19.85** | **0.00** | **9.28** | **10.13** | **0.00** | **1.61** | **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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

### 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | **0.0000** | **5.9200e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Vegetation Clearing | Site Preparation | 3/1/2018 | 3/3/2018 | 5 | 2 | |
| 2 | Pre-Maintenance Pumping | Site Preparation | 3/4/2018 | 3/22/2018 | 5 | 14 | |
| 3 | Pump Use | Site Preparation | 3/23/2018 | 3/27/2018 | 5 | 3 | |
| 4 | Maintenance Activities | Grading | 3/23/2018 | 4/11/2018 | 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: 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 |
|---|---|---|---|---|---|
| Vegetation Clearing | Concrete/Industrial Saws | 4 | 8.00 | 9 | 0.73 |
| Vegetation Clearing | Graders | 0 | 0.00 | 187 | 0.41 |
| Vegetation Clearing | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pre-Maintenance Pumping | Graders | 0 | 0.00 | 187 | 0.41 |
| Pre-Maintenance Pumping | Pumps | 2 | 8.00 | 84 | 0.74 |
| Pre-Maintenance Pumping | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Cranes | 1 | 4.00 | 231 | 0.29 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vegetation Clearing | 4 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pre-Maintenance Pumping | 2 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 3 | 60.00 | 6.00 | 325.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Vegetation Clearing - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.5303** | **0.0000** | **0.5303** | **0.0573** | **0.0000** | **0.0573** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.2386** | **0.0000** | **0.2386** | **0.0258** | **0.0000** | **0.0258** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Vegetation Clearing - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Pre-Maintenance Pumping - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0634 | 8.3495 | 7.6106 | 0.0132 | | 0.5525 | 0.5525 | | 0.5525 | 0.5525 | | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **1.0634** | **8.3495** | **7.6106** | **0.0132** | **0.5303** | **0.5525** | **1.0828** | **0.0573** | **0.5525** | **0.6098** | | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0634 | 8.3495 | 7.6106 | 0.0132 | | 0.5525 | 0.5525 | | 0.5525 | 0.5525 | 0.0000 | 1,246.0691 | 1,246.0691 | 0.0943 | | 1,248.4262 |
| **Total** | **1.0634** | **8.3495** | **7.6106** | **0.0132** | **0.2386** | **0.5525** | **0.7912** | **0.0258** | **0.5525** | **0.5783** | **0.0000** | **1,246.0691** | **1,246.0691** | **0.0943** | | **1,248.4262** |

## 3.3 Pre-Maintenance Pumping - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.4 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

## 3.4 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.5 Maintenance Activities - 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 | 0.7441 | 8.2548 | 5.5701 | 9.4500e-003 | | 0.3898 | 0.3898 | | 0.3587 | 0.3587 | | 951.4480 | 951.4480 | 0.2962 | | 958.8530 |
| **Total** | **0.7441** | **8.2548** | **5.5701** | **9.4500e-003** | **0.0000** | **0.3898** | **0.3898** | **0.0000** | **0.3587** | **0.3587** | | **951.4480** | **951.4480** | **0.2962** | | **958.8530** |

## 3.5 Maintenance Activities - 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 | 0.2186 | 7.4628 | 1.6374 | 0.0184 | 0.4057 | 0.0297 | 0.4354 | 0.1112 | 0.0284 | 0.1396 | | 1,996.9829 | 1,996.9829 | 0.1857 | | 2,001.6256 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2885 | 0.2066 | 1.9484 | 5.0800e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 505.3964 | 505.3964 | 0.0175 | | 505.8342 |
| **Total** | **0.5393** | **8.4613** | **3.8173** | **0.0251** | **0.9392** | **0.0396** | **0.9787** | **0.2536** | **0.0377** | **0.2913** | | **2,676.7980** | **2,676.7980** | **0.2183** | | **2,682.2560** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7441 | 8.2548 | 5.5701 | 9.4500e-003 | | 0.3898 | 0.3898 | | 0.3587 | 0.3587 | 0.0000 | 951.4480 | 951.4480 | 0.2962 | | 958.8530 |
| **Total** | **0.7441** | **8.2548** | **5.5701** | **9.4500e-003** | **0.0000** | **0.3898** | **0.3898** | **0.0000** | **0.3587** | **0.3587** | **0.0000** | **951.4480** | **951.4480** | **0.2962** | | **958.8530** |

### 3.5 Maintenance Activities - 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 | 0.2186 | 7.4628 | 1.6374 | 0.0184 | 0.4057 | 0.0297 | 0.4354 | 0.1112 | 0.0284 | 0.1396 | | 1,996.9829 | 1,996.9829 | 0.1857 | | 2,001.6256 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2885 | 0.2066 | 1.9484 | 5.0800e-003 | 0.4929 | 3.5500e-003 | 0.4964 | 0.1307 | 3.2700e-003 | 0.1340 | | 505.3964 | 505.3964 | 0.0175 | | 505.8342 |
| **Total** | **0.5393** | **8.4613** | **3.8173** | **0.0251** | **0.9392** | **0.0396** | **0.9787** | **0.2536** | **0.0377** | **0.2913** | | **2,676.7980** | **2,676.7980** | **0.2183** | | **2,682.2560** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| Unmitigated | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-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 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

**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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.5000e-004 | 2.0000e-005 | 2.6100e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 5.5400e-003 | 5.5400e-003 | 2.0000e-005 | | 5.9200e-003 |
| **Total** | **2.5000e-004** | **2.0000e-005** | **2.6100e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **5.5400e-003** | **5.5400e-003** | **2.0000e-005** | | **5.9200e-003** |

## 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**

| 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

# Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - Mitigated

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 50.43 | 1000sqft | 1.16 | 50,430.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - Mitigated - San Diego County, Annual

Project Characteristics - Mitigated

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - --

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF and mitigation

Grading - Data provided by applicant

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 25215 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 75645 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| 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 | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 4.00 | 45.00 |
| tblConstructionPhase | NumDays | 2.00 | 9.00 |
| tblConstructionPhase | NumDays | 2.00 | 45.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblGrading | AcresOfGrading | 0.00 | 4.50 |
| tblGrading | AcresOfGrading | 0.00 | 22.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 62.53 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 72.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,661,937.50 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0887 | 0.8392 | 0.5980 | 1.2300e-003 | 0.1680 | 0.0432 | 0.2112 | 0.0808 | 0.0412 | 0.1220 | 0.0000 | 111.0224 | 111.0224 | 0.0180 | 0.0000 | 111.4721 |
| **Maximum** | **0.0887** | **0.8392** | **0.5980** | **1.2300e-003** | **0.1680** | **0.0432** | **0.2112** | **0.0808** | **0.0412** | **0.1220** | **0.0000** | **111.0224** | **111.0224** | **0.0180** | **0.0000** | **111.4721** |

### 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 | 0.0249 | 0.4142 | 0.6371 | 1.2300e-003 | 0.0851 | 2.7500e-003 | 0.0879 | 0.0389 | 2.7300e-003 | 0.0416 | 0.0000 | 111.0223 | 111.0223 | 0.0180 | 0.0000 | 111.4721 |
| **Maximum** | **0.0249** | **0.4142** | **0.6371** | **1.2300e-003** | **0.0851** | **2.7500e-003** | **0.0879** | **0.0389** | **2.7300e-003** | **0.0416** | **0.0000** | **111.0223** | **111.0223** | **0.0180** | **0.0000** | **111.4721** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **71.92** | **50.64** | **-6.54** | **0.00** | **49.31** | **93.63** | **58.38** | **51.83** | **93.37** | **65.85** | **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 | 3-1-2018 | 5-31-2018 | 0.9086 | 0.4184 |
| 2 | 6-1-2018 | 8-31-2018 | 0.0210 | 0.0210 |
| | | Highest | 0.9086 | 0.4184 |

## 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 | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-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 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

## 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 | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-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 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/13/2018 | 5 | 9 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 5/2/2018 | 5 | 45 | |
| 3 | Haul | Site Preparation | 5/3/2018 | 7/4/2018 | 5 | 45 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Graders | 0 | 0.00 | 187 | 0.41 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Haul | Graders | 0 | 0.00 | 187 | 0.41 |
| Haul | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Haul | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 72.00 | 2.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Haul | 0 | 0.00 | 0.00 | 238.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 2.3900e-003 | 0.0000 | 2.3900e-003 | 2.6000e-004 | 0.0000 | 2.6000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0108 | 0.0845 | 0.0771 | 1.3000e-004 | | 5.5900e-003 | 5.5900e-003 | | 5.5900e-003 | 5.5900e-003 | 0.0000 | 11.4455 | 11.4455 | 8.7000e-004 | 0.0000 | 11.4671 |
| **Total** | **0.0108** | **0.0845** | **0.0771** | **1.3000e-004** | **2.3900e-003** | **5.5900e-003** | **7.9800e-003** | **2.6000e-004** | **5.5900e-003** | **5.8500e-003** | **0.0000** | **11.4455** | **11.4455** | **8.7000e-004** | **0.0000** | **11.4671** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.0700e-003 | 0.0000 | 1.0700e-003 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.4400e-003 | 0.0475 | 0.0821 | 1.3000e-004 | | 1.8000e-004 | 1.8000e-004 | | 1.8000e-004 | 1.8000e-004 | 0.0000 | 11.4454 | 11.4454 | 8.7000e-004 | 0.0000 | 11.4671 |
| **Total** | **2.4400e-003** | **0.0475** | **0.0821** | **1.3000e-004** | **1.0700e-003** | **1.8000e-004** | **1.2500e-003** | **1.2000e-004** | **1.8000e-004** | **3.0000e-004** | **0.0000** | **11.4454** | **11.4454** | **8.7000e-004** | **0.0000** | **11.4671** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 0.1363 | 0.0000 | 0.1363 | 0.0746 | 0.0000 | 0.0746 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0685 | 0.6659 | 0.4506 | 7.5000e-004 | | 0.0372 | 0.0372 | | 0.0352 | 0.0352 | 0.0000 | 67.1146 | 67.1146 | 0.0149 | 0.0000 | 67.4871 |
| **Total** | **0.0685** | **0.6659** | **0.4506** | **7.5000e-004** | **0.1363** | **0.0372** | **0.1734** | **0.0746** | **0.0352** | **0.1097** | **0.0000** | **67.1146** | **67.1146** | **0.0149** | **0.0000** | **67.4871** |

## 3.3 Maintenance Activities - 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 | 1.1000e-003 | 0.0386 | 8.0600e-003 | 1.0000e-004 | 2.0400e-003 | 1.5000e-004 | 2.1900e-003 | 5.6000e-004 | 1.4000e-004 | 7.0000e-004 | 0.0000 | 9.3776 | 9.3776 | 8.5000e-004 | 0.0000 | 9.3988 |
| Vendor | 2.4000e-004 | 6.0100e-003 | 1.6500e-003 | 1.0000e-005 | 3.0000e-004 | 5.0000e-005 | 3.5000e-004 | 9.0000e-005 | 4.0000e-005 | 1.3000e-004 | 0.0000 | 1.2045 | 1.2045 | 1.0000e-004 | 0.0000 | 1.2070 |
| Worker | 6.9200e-003 | 5.4800e-003 | 0.0526 | 1.4000e-004 | 0.0130 | 1.0000e-004 | 0.0131 | 3.4500e-003 | 9.0000e-005 | 3.5400e-003 | 0.0000 | 12.5028 | 12.5028 | 4.3000e-004 | 0.0000 | 12.5136 |
| **Total** | **8.2600e-003** | **0.0501** | **0.0623** | **2.5000e-004** | **0.0153** | **3.0000e-004** | **0.0156** | **4.1000e-003** | **2.7000e-004** | **4.3700e-003** | **0.0000** | **23.0848** | **23.0848** | **1.3800e-003** | **0.0000** | **23.1193** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0613 | 0.0000 | 0.0613 | 0.0336 | 0.0000 | 0.0336 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0131 | 0.2779 | 0.4846 | 7.5000e-004 | | 2.1300e-003 | 2.1300e-003 | | 2.1300e-003 | 2.1300e-003 | 0.0000 | 67.1145 | 67.1145 | 0.0149 | 0.0000 | 67.4870 |
| **Total** | **0.0131** | **0.2779** | **0.4846** | **7.5000e-004** | **0.0613** | **2.1300e-003** | **0.0635** | **0.0336** | **2.1300e-003** | **0.0357** | **0.0000** | **67.1145** | **67.1145** | **0.0149** | **0.0000** | **67.4870** |

## 3.3 Maintenance Activities - 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 | 1.1000e-003 | 0.0386 | 8.0600e-003 | 1.0000e-004 | 2.0400e-003 | 1.5000e-004 | 2.1900e-003 | 5.6000e-004 | 1.4000e-004 | 7.0000e-004 | 0.0000 | 9.3776 | 9.3776 | 8.5000e-004 | 0.0000 | 9.3988 |
| Vendor | 2.4000e-004 | 6.0100e-003 | 1.6500e-003 | 1.0000e-005 | 3.0000e-004 | 5.0000e-005 | 3.5000e-004 | 9.0000e-005 | 4.0000e-005 | 1.3000e-004 | 0.0000 | 1.2045 | 1.2045 | 1.0000e-004 | 0.0000 | 1.2070 |
| Worker | 6.9200e-003 | 5.4800e-003 | 0.0526 | 1.4000e-004 | 0.0130 | 1.0000e-004 | 0.0131 | 3.4500e-003 | 9.0000e-005 | 3.5400e-003 | 0.0000 | 12.5028 | 12.5028 | 4.3000e-004 | 0.0000 | 12.5136 |
| **Total** | **8.2600e-003** | **0.0501** | **0.0623** | **2.5000e-004** | **0.0153** | **3.0000e-004** | **0.0156** | **4.1000e-003** | **2.7000e-004** | **4.3700e-003** | **0.0000** | **23.0848** | **23.0848** | **1.3800e-003** | **0.0000** | **23.1193** |

## 3.4 Haul - 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 | | | | | 0.0119 | 0.0000 | 0.0119 | 1.2900e-003 | 0.0000 | 1.2900e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **0.0119** | **0.0000** | **0.0119** | **1.2900e-003** | **0.0000** | **1.2900e-003** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.4 Haul - 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 | 1.1000e-003 | 0.0386 | 8.0600e-003 | 1.0000e-004 | 2.0400e-003 | 1.5000e-004 | 2.1900e-003 | 5.6000e-004 | 1.4000e-004 | 7.0000e-004 | 0.0000 | 9.3776 | 9.3776 | 8.5000e-004 | 0.0000 | 9.3988 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.1000e-003** | **0.0386** | **8.0600e-003** | **1.0000e-004** | **2.0400e-003** | **1.5000e-004** | **2.1900e-003** | **5.6000e-004** | **1.4000e-004** | **7.0000e-004** | **0.0000** | **9.3776** | **9.3776** | **8.5000e-004** | **0.0000** | **9.3988** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 5.3700e-003 | 0.0000 | 5.3700e-003 | 5.8000e-004 | 0.0000 | 5.8000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **5.3700e-003** | **0.0000** | **5.3700e-003** | **5.8000e-004** | **0.0000** | **5.8000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 3.4 Haul - 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 | 1.1000e-003 | 0.0386 | 8.0600e-003 | 1.0000e-004 | 2.0400e-003 | 1.5000e-004 | 2.1900e-003 | 5.6000e-004 | 1.4000e-004 | 7.0000e-004 | 0.0000 | 9.3776 | 9.3776 | 8.5000e-004 | 0.0000 | 9.3988 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.1000e-003** | **0.0386** | **8.0600e-003** | **1.0000e-004** | **2.0400e-003** | **1.5000e-004** | **2.1900e-003** | **5.6000e-004** | **1.4000e-004** | **7.0000e-004** | **0.0000** | **9.3776** | **9.3776** | **8.5000e-004** | **0.0000** | **9.3988** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-004 |
| Unmitigated | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-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 |
| Consumer Products | 0.1970 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-004 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

**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 | 0.1970 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-004 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 50.43 | 1000sqft | 1.16 | 50,430.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - --

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Grading - Data provided by applicant

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 25215 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 75645 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblGrading | AcresOfGrading | 0.00 | 4.50 |
| tblGrading | AcresOfGrading | 0.00 | 22.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 62.53 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 72.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,661,937.50 | 0.00 |

## 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 | | | | | |
| 2017 | 0.0128 | 0.1716 | 0.0809 | 3.0000e-004 | 0.1559 | 5.6900e-003 | 0.1616 | 0.0776 | 5.4600e-003 | 0.0830 | 0.0000 | 28.7384 | 28.7384 | 3.3400e-003 | 0.0000 | 28.8219 |
| **Maximum** | **0.0128** | **0.1716** | **0.0809** | **3.0000e-004** | **0.1559** | **5.6900e-003** | **0.1616** | **0.0776** | **5.4600e-003** | **0.0830** | **0.0000** | **28.7384** | **28.7384** | **3.3400e-003** | **0.0000** | **28.8219** |

### 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 | | | | | |
| 2017 | 0.0128 | 0.1716 | 0.0809 | 3.0000e-004 | 0.0730 | 5.6900e-003 | 0.0787 | 0.0357 | 5.4600e-003 | 0.0412 | 0.0000 | 28.7383 | 28.7383 | 3.3400e-003 | 0.0000 | 28.8219 |
| **Maximum** | **0.0128** | **0.1716** | **0.0809** | **3.0000e-004** | **0.0730** | **5.6900e-003** | **0.0787** | **0.0357** | **5.4600e-003** | **0.0412** | **0.0000** | **28.7383** | **28.7383** | **3.3400e-003** | **0.0000** | **28.8219** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **53.14** | **0.00** | **51.28** | **53.99** | **0.00** | **50.43** | **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) |
|---|---|---|---|---|
| | | 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 | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-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 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

## 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 | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-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 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 11/2/2017 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 11/7/2017 | 11/10/2017 | 5 | 4 | |
| 3 | Haul | Site Preparation | 11/3/2017 | 11/6/2017 | 5 | 2 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Graders | 0 | 0.00 | 187 | 0.41 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Haul | Graders | 0 | 0.00 | 187 | 0.41 |
| Haul | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Haul | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 72.00 | 2.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Haul | 0 | 0.00 | 0.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.3900e-003 | 0.0000 | 2.3900e-003 | 2.6000e-004 | 0.0000 | 2.6000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.6900e-003 | 0.0204 | 0.0172 | 3.0000e-005 | | 1.4200e-003 | 1.4200e-003 | | 1.4200e-003 | 1.4200e-003 | 0.0000 | 2.5434 | 2.5434 | 2.2000e-004 | 0.0000 | 2.5489 |
| **Total** | **2.6900e-003** | **0.0204** | **0.0172** | **3.0000e-005** | **2.3900e-003** | **1.4200e-003** | **3.8100e-003** | **2.6000e-004** | **1.4200e-003** | **1.6800e-003** | **0.0000** | **2.5434** | **2.5434** | **2.2000e-004** | **0.0000** | **2.5489** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

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

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.0700e-003 | 0.0000 | 1.0700e-003 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.6900e-003 | 0.0204 | 0.0172 | 3.0000e-005 | | 1.4200e-003 | 1.4200e-003 | | 1.4200e-003 | 1.4200e-003 | 0.0000 | 2.5434 | 2.5434 | 2.2000e-004 | 0.0000 | 2.5489 |
| **Total** | **2.6900e-003** | **0.0204** | **0.0172** | **3.0000e-005** | **1.0700e-003** | **1.4200e-003** | **2.4900e-003** | **1.2000e-004** | **1.4200e-003** | **1.5400e-003** | **0.0000** | **2.5434** | **2.5434** | **2.2000e-004** | **0.0000** | **2.5489** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

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

## 3.3 Maintenance Activities - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.1363 | 0.0000 | 0.1363 | 0.0746 | 0.0000 | 0.0746 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.8200e-003 | 0.0659 | 0.0410 | 7.0000e-005 | | 3.7900e-003 | 3.7900e-003 | | 3.5900e-003 | 3.5900e-003 | 0.0000 | 6.0263 | 6.0263 | 1.3500e-003 | 0.0000 | 6.0600 |
| **Total** | **6.8200e-003** | **0.0659** | **0.0410** | **7.0000e-005** | **0.1363** | **3.7900e-003** | **0.1401** | **0.0746** | **3.5900e-003** | **0.0782** | **0.0000** | **6.0263** | **6.0263** | **1.3500e-003** | **0.0000** | **6.0600** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-003 | 0.0421 | 8.5700e-003 | 1.0000e-004 | 2.0400e-003 | 2.3000e-004 | 2.2700e-003 | 5.6000e-004 | 2.2000e-004 | 7.8000e-004 | 0.0000 | 9.4589 | 9.4589 | 8.6000e-004 | 0.0000 | 9.4804 |
| Vendor | 2.0000e-005 | 5.7000e-004 | 1.6000e-004 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 3.0000e-005 | 1.0000e-005 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.1074 | 0.1074 | 1.0000e-005 | 0.0000 | 0.1077 |
| Worker | 6.8000e-004 | 5.5000e-004 | 5.2900e-003 | 1.0000e-005 | 1.1500e-003 | 1.0000e-005 | 1.1600e-003 | 3.1000e-004 | 1.0000e-005 | 3.1000e-004 | 0.0000 | 1.1435 | 1.1435 | 4.0000e-005 | 0.0000 | 1.1446 |
| **Total** | **2.0000e-003** | **0.0432** | **0.0140** | **1.1000e-004** | **3.2200e-003** | **2.5000e-004** | **3.4600e-003** | **8.8000e-004** | **2.4000e-004** | **1.1000e-003** | **0.0000** | **10.7098** | **10.7098** | **9.1000e-004** | **0.0000** | **10.7326** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0613 | 0.0000 | 0.0613 | 0.0336 | 0.0000 | 0.0336 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.8200e-003 | 0.0659 | 0.0410 | 7.0000e-005 | | 3.7900e-003 | 3.7900e-003 | | 3.5900e-003 | 3.5900e-003 | 0.0000 | 6.0263 | 6.0263 | 1.3500e-003 | 0.0000 | 6.0600 |
| **Total** | **6.8200e-003** | **0.0659** | **0.0410** | **7.0000e-005** | **0.0613** | **3.7900e-003** | **0.0651** | **0.0336** | **3.5900e-003** | **0.0371** | **0.0000** | **6.0263** | **6.0263** | **1.3500e-003** | **0.0000** | **6.0600** |

## 3.3 Maintenance Activities - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-003 | 0.0421 | 8.5700e-003 | 1.0000e-004 | 2.0400e-003 | 2.3000e-004 | 2.2700e-003 | 5.6000e-004 | 2.2000e-004 | 7.8000e-004 | 0.0000 | 9.4589 | 9.4589 | 8.6000e-004 | 0.0000 | 9.4804 |
| Vendor | 2.0000e-005 | 5.7000e-004 | 1.6000e-004 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 3.0000e-005 | 1.0000e-005 | 1.0000e-005 | 1.0000e-005 | 0.0000 | 0.1074 | 0.1074 | 1.0000e-005 | 0.0000 | 0.1077 |
| Worker | 6.8000e-004 | 5.5000e-004 | 5.2900e-003 | 1.0000e-005 | 1.1500e-003 | 1.0000e-005 | 1.1600e-003 | 3.1000e-004 | 1.0000e-005 | 3.1000e-004 | 0.0000 | 1.1435 | 1.1435 | 4.0000e-005 | 0.0000 | 1.1446 |
| **Total** | **2.0000e-003** | **0.0432** | **0.0140** | **1.1000e-004** | **3.2200e-003** | **2.5000e-004** | **3.4600e-003** | **8.8000e-004** | **2.4000e-004** | **1.1000e-003** | **0.0000** | **10.7098** | **10.7098** | **9.1000e-004** | **0.0000** | **10.7326** |

## 3.4 Haul - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0119 | 0.0000 | 0.0119 | 1.2900e-003 | 0.0000 | 1.2900e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **0.0119** | **0.0000** | **0.0119** | **1.2900e-003** | **0.0000** | **1.2900e-003** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 3.4 Haul - 2017

#### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-003 | 0.0421 | 8.5700e-003 | 1.0000e-004 | 2.0400e-003 | 2.3000e-004 | 2.2700e-003 | 5.6000e-004 | 2.2000e-004 | 7.8000e-004 | 0.0000 | 9.4589 | 9.4589 | 8.6000e-004 | 0.0000 | 9.4804 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.3000e-003** | **0.0421** | **8.5700e-003** | **1.0000e-004** | **2.0400e-003** | **2.3000e-004** | **2.2700e-003** | **5.6000e-004** | **2.2000e-004** | **7.8000e-004** | **0.0000** | **9.4589** | **9.4589** | **8.6000e-004** | **0.0000** | **9.4804** |

#### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 5.3700e-003 | 0.0000 | 5.3700e-003 | 5.8000e-004 | 0.0000 | 5.8000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 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** | **0.0000** | **0.0000** | **5.3700e-003** | **0.0000** | **5.3700e-003** | **5.8000e-004** | **0.0000** | **5.8000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 3.4 Haul - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-003 | 0.0421 | 8.5700e-003 | 1.0000e-004 | 2.0400e-003 | 2.3000e-004 | 2.2700e-003 | 5.6000e-004 | 2.2000e-004 | 7.8000e-004 | 0.0000 | 9.4589 | 9.4589 | 8.6000e-004 | 0.0000 | 9.4804 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.3000e-003** | **0.0421** | **8.5700e-003** | **1.0000e-004** | **2.0400e-003** | **2.3000e-004** | **2.2700e-003** | **5.6000e-004** | **2.2000e-004** | **7.8000e-004** | **0.0000** | **9.4589** | **9.4589** | **8.6000e-004** | **0.0000** | **9.4804** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-004 |
| Unmitigated | 0.1970 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-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 |
| Consumer Products | 0.1970 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-004 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

**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 | 0.1970 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 4.0000e-005 | 0.0000 | 4.7000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.0000e-004 | 9.0000e-004 | 0.0000 | 0.0000 | 9.6000e-004 |
| **Total** | **0.1970** | **0.0000** | **4.7000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **9.0000e-004** | **9.0000e-004** | **0.0000** | **0.0000** | **9.6000e-004** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - Mitigated

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 50.43 | 1000sqft | 1.16 | 50,430.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - Mitigated - San Diego County, Summer

Project Characteristics - Mitigated

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - --

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF and mitigation

Grading - Data provided by applicant

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 25215 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 75645 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| 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 | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 4.00 | 45.00 |
| tblConstructionPhase | NumDays | 2.00 | 9.00 |
| tblConstructionPhase | NumDays | 2.00 | 45.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblGrading | AcresOfGrading | 0.00 | 4.50 |
| tblGrading | AcresOfGrading | 0.00 | 22.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 62.53 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 72.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,661,937.50 | 0.00 |

## 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 | | | | | |
| 2018 | 5.8038 | 50.5497 | 40.0305 | 0.0743 | 7.2851 | 2.9071 | 10.1922 | 3.5574 | 2.8185 | 6.3759 | 0.0000 | 7,259.9933 | 7,259.9933 | 1.0097 | 0.0000 | 7,285.2366 |
| **Maximum** | **5.8038** | **50.5497** | **40.0305** | **0.0743** | **7.2851** | **2.9071** | **10.1922** | **3.5574** | **2.8185** | **6.3759** | **0.0000** | **7,259.9933** | **7,259.9933** | **1.0097** | **0.0000** | **7,285.2366** |

### 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 | 1.4898 | 25.0768 | 42.6736 | 0.0743 | 3.6619 | 0.1472 | 3.8091 | 1.7032 | 0.1465 | 1.8497 | 0.0000 | 7,259.9933 | 7,259.9933 | 1.0097 | 0.0000 | 7,285.2366 |
| **Maximum** | **1.4898** | **25.0768** | **42.6736** | **0.0743** | **3.6619** | **0.1472** | **3.8091** | **1.7032** | **0.1465** | **1.8497** | **0.0000** | **7,259.9933** | **7,259.9933** | **1.0097** | **0.0000** | **7,285.2366** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **74.33** | **50.39** | **-6.60** | **0.00** | **49.73** | **94.94** | **62.63** | **52.12** | **94.80** | **70.99** | **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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

### 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/13/2018 | 5 | 9 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 5/2/2018 | 5 | 45 | |
| 3 | Haul | Site Preparation | 5/3/2018 | 7/4/2018 | 5 | 45 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Graders | 0 | 0.00 | 187 | 0.41 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Haul | Graders | 0 | 0.00 | 187 | 0.41 |
| Haul | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Haul | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 72.00 | 2.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Haul | 0 | 0.00 | 0.00 | 238.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0574 | 0.0000 | 6.0574 | 3.3140 | 0.0000 | 3.3140 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0459 | 29.5967 | 20.0251 | 0.0334 | | 1.6509 | 1.6509 | | 1.5631 | 1.5631 | | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **3.0459** | **29.5967** | **20.0251** | **0.0334** | **6.0574** | **1.6509** | **7.7084** | **3.3140** | **1.5631** | **4.8771** | | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0484 | 1.6823 | 0.3470 | 4.2500e-003 | 0.0924 | 6.6200e-003 | 0.0990 | 0.0253 | 6.3300e-003 | 0.0317 | | 462.6480 | 462.6480 | 0.0408 | | 463.6675 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.3065 | 0.2207 | 2.4648 | 6.4900e-003 | 0.5915 | 4.2600e-003 | 0.5957 | 0.1569 | 3.9300e-003 | 0.1608 | | 646.0017 | 646.0017 | 0.0221 | | 646.5543 |
| **Total** | **0.3652** | **2.1665** | **2.8815** | **0.0113** | **0.6974** | **0.0129** | **0.7104** | **0.1861** | **0.0122** | **0.1983** | | **1,168.2876** | **1,168.2876** | **0.0676** | | **1,169.9780** |

## 3.3 Maintenance Activities - 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 | | | | | 2.7259 | 0.0000 | 2.7259 | 1.4913 | 0.0000 | 1.4913 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5819 | 12.3528 | 21.5385 | 0.0334 | | 0.0948 | 0.0948 | | 0.0948 | 0.0948 | 0.0000 | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **0.5819** | **12.3528** | **21.5385** | **0.0334** | **2.7259** | **0.0948** | **2.8207** | **1.4913** | **0.0948** | **1.5862** | **0.0000** | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0484 | 1.6823 | 0.3470 | 4.2500e-003 | 0.0924 | 6.6200e-003 | 0.0990 | 0.0253 | 6.3300e-003 | 0.0317 | | 462.6480 | 462.6480 | 0.0408 | | 463.6675 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.3065 | 0.2207 | 2.4648 | 6.4900e-003 | 0.5915 | 4.2600e-003 | 0.5957 | 0.1569 | 3.9300e-003 | 0.1608 | | 646.0017 | 646.0017 | 0.0221 | | 646.5543 |
| **Total** | **0.3652** | **2.1665** | **2.8815** | **0.0113** | **0.6974** | **0.0129** | **0.7104** | **0.1861** | **0.0122** | **0.1983** | | **1,168.2876** | **1,168.2876** | **0.0676** | | **1,169.9780** |

## 3.4 Haul - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.5303** | **0.0000** | **0.5303** | **0.0573** | **0.0000** | **0.0573** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0484 | 1.6823 | 0.3470 | 4.2500e-003 | 0.0924 | 6.6200e-003 | 0.0990 | 0.0253 | 6.3300e-003 | 0.0317 | | 462.6480 | 462.6480 | 0.0408 | | 463.6675 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0484** | **1.6823** | **0.3470** | **4.2500e-003** | **0.0924** | **6.6200e-003** | **0.0990** | **0.0253** | **6.3300e-003** | **0.0317** | | **462.6480** | **462.6480** | **0.0408** | | **463.6675** |

### 3.4 Haul - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.2386** | **0.0000** | **0.2386** | **0.0258** | **0.0000** | **0.0258** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0484 | 1.6823 | 0.3470 | 4.2500e-003 | 0.0924 | 6.6200e-003 | 0.0990 | 0.0253 | 6.3300e-003 | 0.0317 | | 462.6480 | 462.6480 | 0.0408 | | 463.6675 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0484** | **1.6823** | **0.3470** | **4.2500e-003** | **0.0924** | **6.6200e-003** | **0.0990** | **0.0253** | **6.3300e-003** | **0.0317** | | **462.6480** | **462.6480** | **0.0408** | | **463.6675** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| Unmitigated | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |

## 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

### 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

## 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**

| 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

# Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 50.43 | 1000sqft | 1.16 | 50,430.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - --

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Grading - Data provided by applicant

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 25215 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 75645 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblGrading | AcresOfGrading | 0.00 | 4.50 |
| tblGrading | AcresOfGrading | 0.00 | 22.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 62.53 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 72.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,661,937.50 | 0.00 |

## 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 | | | | | |
| 2017 | 4.4025 | 54.0713 | 27.5213 | 0.0968 | 69.7909 | 2.0171 | 71.8080 | 37.7287 | 1.9104 | 39.6392 | 0.0000 | 10,496.9622 | 10,496.9622 | 1.2391 | 0.0000 | 10,520.2684 |
| **Maximum** | **4.4025** | **54.0713** | **27.5213** | **0.0968** | **69.7909** | **2.0171** | **71.8080** | **37.7287** | **1.9104** | **39.6392** | **0.0000** | **10,496.9622** | **10,496.9622** | **1.2391** | **0.0000** | **10,520.2684** |

### 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 | | | | | |
| 2017 | 4.4025 | 54.0713 | 27.5213 | 0.0968 | 32.3105 | 2.0171 | 34.3276 | 17.2231 | 1.9104 | 19.1335 | 0.0000 | 10,496.9622 | 10,496.9622 | 1.2391 | 0.0000 | 10,520.2684 |
| **Maximum** | **4.4025** | **54.0713** | **27.5213** | **0.0968** | **32.3105** | **2.0171** | **34.3276** | **17.2231** | **1.9104** | **19.1335** | **0.0000** | **10,496.9622** | **10,496.9622** | **1.2391** | **0.0000** | **10,520.2684** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **53.70** | **0.00** | **52.20** | **54.35** | **0.00** | **51.73** | **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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

### 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 11/2/2017 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 11/7/2017 | 11/10/2017 | 5 | 4 | |
| 3 | Haul | Site Preparation | 11/3/2017 | 11/6/2017 | 5 | 2 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Graders | 0 | 0.00 | 187 | 0.41 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Haul | Graders | 0 | 0.00 | 187 | 0.41 |
| Haul | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Haul | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 72.00 | 2.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Haul | 0 | 0.00 | 0.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.3861 | 0.0000 | 2.3861 | 0.2577 | 0.0000 | 0.2577 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **2.3861** | **1.4159** | **3.8020** | **0.2577** | **1.4159** | **1.6735** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.0738 | 0.0000 | 1.0738 | 0.1159 | 0.0000 | 0.1159 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **1.0738** | **1.4159** | **2.4897** | **0.1159** | **1.4159** | **1.5318** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 68.1462 | 0.0000 | 68.1462 | 37.2830 | 0.0000 | 37.2830 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.4114 | 32.9247 | 20.5179 | 0.0334 | | 1.8938 | 1.8938 | | 1.7927 | 1.7927 | | 3,321.4043 | 3,321.4043 | 0.7433 | | 3,339.9872 |
| **Total** | **3.4114** | **32.9247** | **20.5179** | **0.0334** | **68.1462** | **1.8938** | **70.0400** | **37.2830** | **1.7927** | **39.0757** | | **3,321.4043** | **3,321.4043** | **0.7433** | | **3,339.9872** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.6409 | 20.6147 | 4.1468 | 0.0484 | 1.0397 | 0.1163 | 1.1560 | 0.2850 | 0.1113 | 0.3962 | | 5,248.4811 | 5,248.4811 | 0.4661 | | 5,260.1342 |
| Vendor | 0.0119 | 0.2823 | 0.0775 | 5.6000e-004 | 0.0135 | 2.6300e-003 | 0.0162 | 3.9000e-003 | 2.5200e-003 | 6.4100e-003 | | 59.8206 | 59.8206 | 4.9500e-003 | | 59.9443 |
| Worker | 0.3384 | 0.2496 | 2.7792 | 6.6800e-003 | 0.5915 | 4.3600e-003 | 0.5958 | 0.1569 | 4.0200e-003 | 0.1609 | | 664.6409 | 664.6409 | 0.0247 | | 665.2574 |
| **Total** | **0.9912** | **21.1466** | **7.0034** | **0.0557** | **1.6447** | **0.1233** | **1.7680** | **0.4457** | **0.1178** | **0.5635** | | **5,972.9425** | **5,972.9425** | **0.4957** | | **5,985.3360** |

## 3.3 Maintenance Activities - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 30.6658 | 0.0000 | 30.6658 | 16.7774 | 0.0000 | 16.7774 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.4114 | 32.9247 | 20.5179 | 0.0334 | | 1.8938 | 1.8938 | | 1.7927 | 1.7927 | 0.0000 | 3,321.4043 | 3,321.4043 | 0.7433 | | 3,339.9872 |
| **Total** | **3.4114** | **32.9247** | **20.5179** | **0.0334** | **30.6658** | **1.8938** | **32.5596** | **16.7774** | **1.7927** | **18.5700** | **0.0000** | **3,321.4043** | **3,321.4043** | **0.7433** | | **3,339.9872** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.6409 | 20.6147 | 4.1468 | 0.0484 | 1.0397 | 0.1163 | 1.1560 | 0.2850 | 0.1113 | 0.3962 | | 5,248.4811 | 5,248.4811 | 0.4661 | | 5,260.1342 |
| Vendor | 0.0119 | 0.2823 | 0.0775 | 5.6000e-004 | 0.0135 | 2.6300e-003 | 0.0162 | 3.9000e-003 | 2.5200e-003 | 6.4100e-003 | | 59.8206 | 59.8206 | 4.9500e-003 | | 59.9443 |
| Worker | 0.3384 | 0.2496 | 2.7792 | 6.6800e-003 | 0.5915 | 4.3600e-003 | 0.5958 | 0.1569 | 4.0200e-003 | 0.1609 | | 664.6409 | 664.6409 | 0.0247 | | 665.2574 |
| **Total** | **0.9912** | **21.1466** | **7.0034** | **0.0557** | **1.6447** | **0.1233** | **1.7680** | **0.4457** | **0.1178** | **0.5635** | | **5,972.9425** | **5,972.9425** | **0.4957** | | **5,985.3360** |

## 3.4 Haul - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 11.9306 | 0.0000 | 11.9306 | 1.2882 | 0.0000 | 1.2882 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **11.9306** | **0.0000** | **11.9306** | **1.2882** | **0.0000** | **1.2882** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.2817 | 41.2294 | 8.2935 | 0.0968 | 2.0795 | 0.2326 | 2.3120 | 0.5699 | 0.2225 | 0.7924 | | 10,496.9622 | 10,496.9622 | 0.9323 | | 10,520.2684 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.2817** | **41.2294** | **8.2935** | **0.0968** | **2.0795** | **0.2326** | **2.3120** | **0.5699** | **0.2225** | **0.7924** | | **10,496.9622** | **10,496.9622** | **0.9323** | | **10,520.2684** |

### 3.4 Haul - 2017

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 5.3688 | 0.0000 | 5.3688 | 0.5797 | 0.0000 | 0.5797 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **5.3688** | **0.0000** | **5.3688** | **0.5797** | **0.0000** | **0.5797** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.2817 | 41.2294 | 8.2935 | 0.0968 | 2.0795 | 0.2326 | 2.3120 | 0.5699 | 0.2225 | 0.7924 | | 10,496.9622 | 10,496.9622 | 0.9323 | | 10,520.2684 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.2817** | **41.2294** | **8.2935** | **0.0968** | **2.0795** | **0.2326** | **2.3120** | **0.5699** | **0.2225** | **0.7924** | | **10,496.9622** | **10,496.9622** | **0.9323** | | **10,520.2684** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| Unmitigated | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |

## 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

### 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

## 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**

| 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

# Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - Mitigated

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 50.43 | 1000sqft | 1.16 | 50,430.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - Mitigated - San Diego County, Winter

Project Characteristics - Mitigated

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - --

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF and mitigation

Grading - Data provided by applicant

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 25215 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 75645 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| 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 | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 4.00 | 45.00 |
| tblConstructionPhase | NumDays | 2.00 | 9.00 |
| tblConstructionPhase | NumDays | 2.00 | 45.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblGrading | AcresOfGrading | 0.00 | 4.50 |
| tblGrading | AcresOfGrading | 0.00 | 22.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 62.53 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 72.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,661,937.50 | 0.00 |

## 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 | | | | | |
| 2018 | 5.8454 | 50.5953 | 39.9373 | 0.0738 | 7.2851 | 2.9073 | 10.1924 | 3.5574 | 2.8187 | 6.3761 | 0.0000 | 7,211.2916 | 7,211.2916 | 1.0105 | 0.0000 | 7,236.5535 |
| **Maximum** | **5.8454** | **50.5953** | **39.9373** | **0.0738** | **7.2851** | **2.9073** | **10.1924** | **3.5574** | **2.8187** | **6.3761** | **0.0000** | **7,211.2916** | **7,211.2916** | **1.0105** | **0.0000** | **7,236.5535** |

### 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 | 1.5314 | 25.1224 | 42.5804 | 0.0738 | 3.6619 | 0.1474 | 3.8093 | 1.7032 | 0.1467 | 1.8499 | 0.0000 | 7,211.2916 | 7,211.2916 | 1.0105 | 0.0000 | 7,236.5535 |
| **Maximum** | **1.5314** | **25.1224** | **42.5804** | **0.0738** | **3.6619** | **0.1474** | **3.8093** | **1.7032** | **0.1467** | **1.8499** | **0.0000** | **7,211.2916** | **7,211.2916** | **1.0105** | **0.0000** | **7,236.5535** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **73.80** | **50.35** | **-6.62** | **0.00** | **49.73** | **94.93** | **62.63** | **52.12** | **94.80** | **70.99** | **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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

### 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/13/2018 | 5 | 9 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 5/2/2018 | 5 | 45 | |
| 3 | Haul | Site Preparation | 5/3/2018 | 7/4/2018 | 5 | 45 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Graders | 0 | 0.00 | 187 | 0.41 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Haul | Graders | 0 | 0.00 | 187 | 0.41 |
| Haul | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Haul | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 72.00 | 2.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Haul | 0 | 0.00 | 0.00 | 238.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0574 | 0.0000 | 6.0574 | 3.3140 | 0.0000 | 3.3140 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0459 | 29.5967 | 20.0251 | 0.0334 | | 1.6509 | 1.6509 | | 1.5631 | 1.5631 | | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **3.0459** | **29.5967** | **20.0251** | **0.0334** | **6.0574** | **1.6509** | **7.7084** | **3.3140** | **1.5631** | **4.8771** | | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0498 | 1.7003 | 0.3730 | 4.1800e-003 | 0.0924 | 6.7700e-003 | 0.0992 | 0.0253 | 6.4800e-003 | 0.0318 | | 454.9707 | 454.9707 | 0.0423 | | 456.0285 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.3462 | 0.2479 | 2.3380 | 6.0900e-003 | 0.5915 | 4.2600e-003 | 0.5957 | 0.1569 | 3.9300e-003 | 0.1608 | | 606.4756 | 606.4756 | 0.0210 | | 607.0011 |
| **Total** | **0.4067** | **2.2121** | **2.7883** | **0.0108** | **0.6974** | **0.0131** | **0.7105** | **0.1861** | **0.0124** | **0.1985** | | **1,119.5860** | **1,119.5860** | **0.0684** | | **1,121.2949** |

## 3.3 Maintenance Activities - 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 | | | | | 2.7259 | 0.0000 | 2.7259 | 1.4913 | 0.0000 | 1.4913 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5819 | 12.3528 | 21.5385 | 0.0334 | | 0.0948 | 0.0948 | | 0.0948 | 0.0948 | 0.0000 | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **0.5819** | **12.3528** | **21.5385** | **0.0334** | **2.7259** | **0.0948** | **2.8207** | **1.4913** | **0.0948** | **1.5862** | **0.0000** | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0498 | 1.7003 | 0.3730 | 4.1800e-003 | 0.0924 | 6.7700e-003 | 0.0992 | 0.0253 | 6.4800e-003 | 0.0318 | | 454.9707 | 454.9707 | 0.0423 | | 456.0285 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.3462 | 0.2479 | 2.3380 | 6.0900e-003 | 0.5915 | 4.2600e-003 | 0.5957 | 0.1569 | 3.9300e-003 | 0.1608 | | 606.4756 | 606.4756 | 0.0210 | | 607.0011 |
| **Total** | **0.4067** | **2.2121** | **2.7883** | **0.0108** | **0.6974** | **0.0131** | **0.7105** | **0.1861** | **0.0124** | **0.1985** | | **1,119.5860** | **1,119.5860** | **0.0684** | | **1,121.2949** |

## 3.4 Haul - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.5303** | **0.0000** | **0.5303** | **0.0573** | **0.0000** | **0.0573** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0498 | 1.7003 | 0.3730 | 4.1800e-003 | 0.0924 | 6.7700e-003 | 0.0992 | 0.0253 | 6.4800e-003 | 0.0318 | | 454.9707 | 454.9707 | 0.0423 | | 456.0285 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0498** | **1.7003** | **0.3730** | **4.1800e-003** | **0.0924** | **6.7700e-003** | **0.0992** | **0.0253** | **6.4800e-003** | **0.0318** | | **454.9707** | **454.9707** | **0.0423** | | **456.0285** |

### 3.4 Haul - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.2386** | **0.0000** | **0.2386** | **0.0258** | **0.0000** | **0.0258** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0498 | 1.7003 | 0.3730 | 4.1800e-003 | 0.0924 | 6.7700e-003 | 0.0992 | 0.0253 | 6.4800e-003 | 0.0318 | | 454.9707 | 454.9707 | 0.0423 | | 456.0285 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0498** | **1.7003** | **0.3730** | **4.1800e-003** | **0.0924** | **6.7700e-003** | **0.0992** | **0.0253** | **6.4800e-003** | **0.0318** | | **454.9707** | **454.9707** | **0.0423** | | **456.0285** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| Unmitigated | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |

## 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

### 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

## 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**

| 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

# Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 50.43 | 1000sqft | 1.16 | 50,430.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Earthen Channels Typical Large - Murphy Canyon Creek - Stadium Segment - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - --

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Grading - Data provided by applicant

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 25215 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 75645 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblGrading | AcresOfGrading | 0.00 | 4.50 |
| tblGrading | AcresOfGrading | 0.00 | 22.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 62.53 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 238.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 72.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 11,661,937.50 | 0.00 |

## 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 | | | | | |
| 2017 | 4.4635 | 54.3501 | 27.7165 | 0.0953 | 69.7909 | 2.0193 | 71.8101 | 37.7287 | 1.9125 | 39.6412 | 0.0000 | 10,329.4507 | 10,329.4507 | 1.2563 | 0.0000 | 10,353.6568 |
| **Maximum** | **4.4635** | **54.3501** | **27.7165** | **0.0953** | **69.7909** | **2.0193** | **71.8101** | **37.7287** | **1.9125** | **39.6412** | **0.0000** | **10,329.4507** | **10,329.4507** | **1.2563** | **0.0000** | **10,353.6568** |

### 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 | | | | | |
| 2017 | 4.4635 | 54.3501 | 27.7165 | 0.0953 | 32.3105 | 2.0193 | 34.3298 | 17.2231 | 1.9125 | 19.1356 | 0.0000 | 10,329.4507 | 10,329.4507 | 1.2563 | 0.0000 | 10,353.6568 |
| **Maximum** | **4.4635** | **54.3501** | **27.7165** | **0.0953** | **32.3105** | **2.0193** | **34.3298** | **17.2231** | **1.9125** | **19.1356** | **0.0000** | **10,329.4507** | **10,329.4507** | **1.2563** | **0.0000** | **10,353.6568** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **53.70** | **0.00** | **52.19** | **54.35** | **0.00** | **51.73** | **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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

### 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| 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 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | **0.0000** | **0.0118** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 11/1/2017 | 11/2/2017 | 5 | 2 | |
| 2 | Maintenance Activities | Grading | 11/7/2017 | 11/10/2017 | 5 | 4 | |
| 3 | Haul | Site Preparation | 11/3/2017 | 11/6/2017 | 5 | 2 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Graders | 0 | 0.00 | 187 | 0.41 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Haul | Graders | 0 | 0.00 | 187 | 0.41 |
| Haul | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Haul | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 72.00 | 2.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Haul | 0 | 0.00 | 0.00 | 238.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.3861 | 0.0000 | 2.3861 | 0.2577 | 0.0000 | 0.2577 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **2.3861** | **1.4159** | **3.8020** | **0.2577** | **1.4159** | **1.6735** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 1.0738 | 0.0000 | 1.0738 | 0.1159 | 0.0000 | 0.1159 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **1.0738** | **1.4159** | **2.4897** | **0.1159** | **1.4159** | **1.5318** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 68.1462 | 0.0000 | 68.1462 | 37.2830 | 0.0000 | 37.2830 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.4114 | 32.9247 | 20.5179 | 0.0334 | | 1.8938 | 1.8938 | | 1.7927 | 1.7927 | | 3,321.4043 | 3,321.4043 | 0.7433 | | 3,339.9872 |
| **Total** | **3.4114** | **32.9247** | **20.5179** | **0.0334** | **68.1462** | **1.8938** | **70.0400** | **37.2830** | **1.7927** | **39.0757** | | **3,321.4043** | **3,321.4043** | **0.7433** | | **3,339.9872** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.6576 | 20.8619 | 4.4613 | 0.0476 | 1.0397 | 0.1184 | 1.1581 | 0.2850 | 0.1133 | 0.3982 | | 5,164.7253 | 5,164.7253 | 0.4841 | | 5,176.8284 |
| Vendor | 0.0124 | 0.2832 | 0.0855 | 5.5000e-004 | 0.0135 | 2.6700e-003 | 0.0162 | 3.9000e-003 | 2.5600e-003 | 6.4500e-003 | | 58.3663 | 58.3663 | 5.2700e-003 | | 58.4980 |
| Worker | 0.3821 | 0.2803 | 2.6519 | 6.2700e-003 | 0.5915 | 4.3600e-003 | 0.5958 | 0.1569 | 4.0200e-003 | 0.1609 | | 624.0372 | 624.0372 | 0.0235 | | 624.6256 |
| **Total** | **1.0521** | **21.4254** | **7.1986** | **0.0545** | **1.6447** | **0.1254** | **1.7702** | **0.4457** | **0.1199** | **0.5656** | | **5,847.1288** | **5,847.1288** | **0.5129** | | **5,859.9521** |

## 3.3 Maintenance Activities - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 30.6658 | 0.0000 | 30.6658 | 16.7774 | 0.0000 | 16.7774 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.4114 | 32.9247 | 20.5179 | 0.0334 | | 1.8938 | 1.8938 | | 1.7927 | 1.7927 | 0.0000 | 3,321.4043 | 3,321.4043 | 0.7433 | | 3,339.9872 |
| **Total** | **3.4114** | **32.9247** | **20.5179** | **0.0334** | **30.6658** | **1.8938** | **32.5596** | **16.7774** | **1.7927** | **18.5700** | **0.0000** | **3,321.4043** | **3,321.4043** | **0.7433** | | **3,339.9872** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.6576 | 20.8619 | 4.4613 | 0.0476 | 1.0397 | 0.1184 | 1.1581 | 0.2850 | 0.1133 | 0.3982 | | 5,164.7253 | 5,164.7253 | 0.4841 | | 5,176.8284 |
| Vendor | 0.0124 | 0.2832 | 0.0855 | 5.5000e-004 | 0.0135 | 2.6700e-003 | 0.0162 | 3.9000e-003 | 2.5600e-003 | 6.4500e-003 | | 58.3663 | 58.3663 | 5.2700e-003 | | 58.4980 |
| Worker | 0.3821 | 0.2803 | 2.6519 | 6.2700e-003 | 0.5915 | 4.3600e-003 | 0.5958 | 0.1569 | 4.0200e-003 | 0.1609 | | 624.0372 | 624.0372 | 0.0235 | | 624.6256 |
| **Total** | **1.0521** | **21.4254** | **7.1986** | **0.0545** | **1.6447** | **0.1254** | **1.7702** | **0.4457** | **0.1199** | **0.5656** | | **5,847.1288** | **5,847.1288** | **0.5129** | | **5,859.9521** |

## 3.4 Haul - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 11.9306 | 0.0000 | 11.9306 | 1.2882 | 0.0000 | 1.2882 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **11.9306** | **0.0000** | **11.9306** | **1.2882** | **0.0000** | **1.2882** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.3153 | 41.7238 | 8.9226 | 0.0953 | 2.0795 | 0.2368 | 2.3163 | 0.5699 | 0.2266 | 0.7965 | | 10,329.4507 | 10,329.4507 | 0.9683 | | 10,353.6568 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.3153** | **41.7238** | **8.9226** | **0.0953** | **2.0795** | **0.2368** | **2.3163** | **0.5699** | **0.2266** | **0.7965** | | **10,329.4507** | **10,329.4507** | **0.9683** | | **10,353.6568** |

### 3.4 Haul - 2017

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 5.3688 | 0.0000 | 5.3688 | 0.5797 | 0.0000 | 0.5797 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **5.3688** | **0.0000** | **5.3688** | **0.5797** | **0.0000** | **0.5797** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 1.3153 | 41.7238 | 8.9226 | 0.0953 | 2.0795 | 0.2368 | 2.3163 | 0.5699 | 0.2266 | 0.7965 | | 10,329.4507 | 10,329.4507 | 0.9683 | | 10,353.6568 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **1.3153** | **41.7238** | **8.9226** | **0.0953** | **2.0795** | **0.2368** | **2.3163** | **0.5699** | **0.2266** | **0.7965** | | **10,329.4507** | **10,329.4507** | **0.9683** | | **10,353.6568** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| Unmitigated | 1.0797 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |

## 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

### 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 | 1.0792 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 4.9000e-004 | 5.0000e-005 | 5.2000e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | | 0.0110 | 0.0110 | 3.0000e-005 | | 0.0118 |
| **Total** | **1.0797** | **5.0000e-005** | **5.2000e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | | **0.0110** | **0.0110** | **3.0000e-005** | | **0.0118** |

## 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**

| 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

# Tecolote Creek – Genesee Mitigated

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 37.26 | 1000sqft | 0.86 | 37,260.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Tecolote Creek – Genesee Mitigated - San Diego County, Annual

Project Characteristics - Mitigated

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i.

Grading - Data provided by applicant.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 18630 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 55890 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 30.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 46.20 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 450.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 56.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 8,616,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0551 | 0.5518 | 0.3695 | 8.1000e-004 | 0.1019 | 0.0270 | 0.1289 | 0.0526 | 0.0257 | 0.0783 | 0.0000 | 73.5564 | 73.5564 | 0.0121 | 0.0000 | 73.8591 |
| **Maximum** | **0.0551** | **0.5518** | **0.3695** | **8.1000e-004** | **0.1019** | **0.0270** | **0.1289** | **0.0526** | **0.0257** | **0.0783** | **0.0000** | **73.5564** | **73.5564** | **0.0121** | **0.0000** | **73.8591** |

### 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 | 0.0154 | 0.2809 | 0.3939 | 8.1000e-004 | 0.0518 | 1.8500e-003 | 0.0536 | 0.0253 | 1.8300e-003 | 0.0271 | 0.0000 | 73.5563 | 73.5563 | 0.0121 | 0.0000 | 73.8590 |
| **Maximum** | **0.0154** | **0.2809** | **0.3939** | **8.1000e-004** | **0.0518** | **1.8500e-003** | **0.0536** | **0.0253** | **1.8300e-003** | **0.0271** | **0.0000** | **73.5563** | **73.5563** | **0.0121** | **0.0000** | **73.8590** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **72.10** | **49.09** | **-6.60** | **0.00** | **49.18** | **93.14** | **58.38** | **51.96** | **92.87** | **65.36** | **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 | 3-1-2018 | 5-31-2018 | 0.6123 | 0.2988 |
| | | Highest | 0.6123 | 0.2988 |

## 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 | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-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 | 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** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

## 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 | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-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 | 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** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 4/11/2018 | 5 | 30 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 56.00 | 2.00 | 450.00 | 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

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Pump Use - 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 | | | | | 8.0000e-004 | 0.0000 | 8.0000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **8.0000e-004** | **1.8600e-003** | **2.6600e-003** | **9.0000e-005** | **1.8600e-003** | **1.9500e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 3.6000e-004 | 0.0000 | 3.6000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.1000e-004 | 0.0158 | 0.0274 | 4.0000e-005 | | 6.0000e-005 | 6.0000e-005 | | 6.0000e-005 | 6.0000e-005 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **8.1000e-004** | **0.0158** | **0.0274** | **4.0000e-005** | **3.6000e-004** | **6.0000e-005** | **4.2000e-004** | **4.0000e-005** | **6.0000e-005** | **1.0000e-004** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0903 | 0.0000 | 0.0903 | 0.0497 | 0.0000 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0457 | 0.4437 | 0.3002 | 5.0000e-004 | | 0.0248 | 0.0248 | | 0.0234 | 0.0234 | 0.0000 | 44.7246 | 44.7246 | 9.9300e-003 | 0.0000 | 44.9728 |
| **Total** | **0.0457** | **0.4437** | **0.3002** | **5.0000e-004** | **0.0903** | **0.0248** | **0.1151** | **0.0497** | **0.0234** | **0.0731** | **0.0000** | **44.7246** | **44.7246** | **9.9300e-003** | **0.0000** | **44.9728** |

## 3.3 Maintenance Activities - 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 | 2.0800e-003 | 0.0730 | 0.0152 | 1.8000e-004 | 3.8500e-003 | 2.8000e-004 | 4.1300e-003 | 1.0600e-003 | 2.7000e-004 | 1.3300e-003 | 0.0000 | 17.7308 | 17.7308 | 1.6000e-003 | 0.0000 | 17.7707 |
| Vendor | 1.6000e-004 | 4.0000e-003 | 1.1000e-003 | 1.0000e-005 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 6.0000e-005 | 3.0000e-005 | 9.0000e-005 | 0.0000 | 0.8030 | 0.8030 | 7.0000e-005 | 0.0000 | 0.8046 |
| Worker | 3.5900e-003 | 2.8400e-003 | 0.0273 | 7.0000e-005 | 6.7400e-003 | 5.0000e-005 | 6.7900e-003 | 1.7900e-003 | 5.0000e-005 | 1.8400e-003 | 0.0000 | 6.4829 | 6.4829 | 2.2000e-004 | 0.0000 | 6.4885 |
| **Total** | **5.8300e-003** | **0.0799** | **0.0436** | **2.6000e-004** | **0.0108** | **3.6000e-004** | **0.0112** | **2.9100e-003** | **3.5000e-004** | **3.2600e-003** | **0.0000** | **25.0166** | **25.0166** | **1.8900e-003** | **0.0000** | **25.0639** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 8.7300e-003 | 0.1852 | 0.3229 | 5.0000e-004 | | 1.4200e-003 | 1.4200e-003 | | 1.4200e-003 | 1.4200e-003 | 0.0000 | 44.7246 | 44.7246 | 9.9300e-003 | 0.0000 | 44.9728 |
| **Total** | **8.7300e-003** | **0.1852** | **0.3229** | **5.0000e-004** | **0.0407** | **1.4200e-003** | **0.0421** | **0.0223** | **1.4200e-003** | **0.0238** | **0.0000** | **44.7246** | **44.7246** | **9.9300e-003** | **0.0000** | **44.9728** |

### 3.3 Maintenance Activities - 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 | 2.0800e-003 | 0.0730 | 0.0152 | 1.8000e-004 | 3.8500e-003 | 2.8000e-004 | 4.1300e-003 | 1.0600e-003 | 2.7000e-004 | 1.3300e-003 | 0.0000 | 17.7308 | 17.7308 | 1.6000e-003 | 0.0000 | 17.7707 |
| Vendor | 1.6000e-004 | 4.0000e-003 | 1.1000e-003 | 1.0000e-005 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 6.0000e-005 | 3.0000e-005 | 9.0000e-005 | 0.0000 | 0.8030 | 0.8030 | 7.0000e-005 | 0.0000 | 0.8046 |
| Worker | 3.5900e-003 | 2.8400e-003 | 0.0273 | 7.0000e-005 | 6.7400e-003 | 5.0000e-005 | 6.7900e-003 | 1.7900e-003 | 5.0000e-005 | 1.8400e-003 | 0.0000 | 6.4829 | 6.4829 | 2.2000e-004 | 0.0000 | 6.4885 |
| **Total** | **5.8300e-003** | **0.0799** | **0.0436** | **2.6000e-004** | **0.0108** | **3.6000e-004** | **0.0112** | **2.9100e-003** | **3.5000e-004** | **3.2600e-003** | **0.0000** | **25.0166** | **25.0166** | **1.8900e-003** | **0.0000** | **25.0639** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-004 |
| Unmitigated | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-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 |
| Consumer Products | 0.1455 | | | | | 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 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-004 |
| **Total** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

**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 | 0.1455 | | | | | 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 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-004 |
| **Total** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Tecolote Creek – Genesee

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 37.26 | 1000sqft | 0.86 | 37,260.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Grading - Data provided by applicant.

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 18630 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 55890 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 30.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 46.20 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 450.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 56.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 8,616,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.0551 | 0.5520 | 0.3697 | 8.1000e-004 | 0.1019 | 0.0270 | 0.1289 | 0.0526 | 0.0257 | 0.0783 | 0.0000 | 73.5748 | 73.5748 | 0.0121 | 0.0000 | 73.8776 |
| **Maximum** | **0.0551** | **0.5520** | **0.3697** | **8.1000e-004** | **0.1019** | **0.0270** | **0.1289** | **0.0526** | **0.0257** | **0.0783** | **0.0000** | **73.5748** | **73.5748** | **0.0121** | **0.0000** | **73.8776** |

### 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 | 0.0551 | 0.5520 | 0.3697 | 8.1000e-004 | 0.0518 | 0.0270 | 0.0788 | 0.0253 | 0.0257 | 0.0510 | 0.0000 | 73.5748 | 73.5748 | 0.0121 | 0.0000 | 73.8776 |
| **Maximum** | **0.0551** | **0.5520** | **0.3697** | **8.1000e-004** | **0.0518** | **0.0270** | **0.0788** | **0.0253** | **0.0257** | **0.0510** | **0.0000** | **73.5748** | **73.5748** | **0.0121** | **0.0000** | **73.8776** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **49.18** | **0.00** | **38.88** | **51.96** | **0.00** | **34.93** | **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 | 3-1-2018 | 5-31-2018 | 0.6125 | 0.6125 |
| | | Highest | 0.6125 | 0.6125 |

## 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 | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-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 | 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** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

## 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 | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-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 | 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** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 4/11/2018 | 5 | 30 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 56.00 | 2.00 | 450.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Pump Use - 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 | | | | | 8.0000e-004 | 0.0000 | 8.0000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **8.0000e-004** | **1.8600e-003** | **2.6600e-003** | **9.0000e-005** | **1.8600e-003** | **1.9500e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 3.6000e-004 | 0.0000 | 3.6000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.5900e-003 | 0.0282 | 0.0257 | 4.0000e-005 | | 1.8600e-003 | 1.8600e-003 | | 1.8600e-003 | 1.8600e-003 | 0.0000 | 3.8152 | 3.8152 | 2.9000e-004 | 0.0000 | 3.8224 |
| **Total** | **3.5900e-003** | **0.0282** | **0.0257** | **4.0000e-005** | **3.6000e-004** | **1.8600e-003** | **2.2200e-003** | **4.0000e-005** | **1.8600e-003** | **1.9000e-003** | **0.0000** | **3.8152** | **3.8152** | **2.9000e-004** | **0.0000** | **3.8224** |

## 3.2 Pump Use - 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 0.0903 | 0.0000 | 0.0903 | 0.0497 | 0.0000 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0457 | 0.4440 | 0.3004 | 5.0000e-004 | | 0.0248 | 0.0248 | | 0.0235 | 0.0235 | 0.0000 | 44.7430 | 44.7430 | 9.9300e-003 | 0.0000 | 44.9914 |
| **Total** | **0.0457** | **0.4440** | **0.3004** | **5.0000e-004** | **0.0903** | **0.0248** | **0.1151** | **0.0497** | **0.0235** | **0.0731** | **0.0000** | **44.7430** | **44.7430** | **9.9300e-003** | **0.0000** | **44.9914** |

## 3.3 Maintenance Activities - 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 | 2.0800e-003 | 0.0730 | 0.0152 | 1.8000e-004 | 3.8500e-003 | 2.8000e-004 | 4.1300e-003 | 1.0600e-003 | 2.7000e-004 | 1.3300e-003 | 0.0000 | 17.7308 | 17.7308 | 1.6000e-003 | 0.0000 | 17.7707 |
| Vendor | 1.6000e-004 | 4.0000e-003 | 1.1000e-003 | 1.0000e-005 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 6.0000e-005 | 3.0000e-005 | 9.0000e-005 | 0.0000 | 0.8030 | 0.8030 | 7.0000e-005 | 0.0000 | 0.8046 |
| Worker | 3.5900e-003 | 2.8400e-003 | 0.0273 | 7.0000e-005 | 6.7400e-003 | 5.0000e-005 | 6.7900e-003 | 1.7900e-003 | 5.0000e-005 | 1.8400e-003 | 0.0000 | 6.4829 | 6.4829 | 2.2000e-004 | 0.0000 | 6.4885 |
| **Total** | **5.8300e-003** | **0.0799** | **0.0436** | **2.6000e-004** | **0.0108** | **3.6000e-004** | **0.0112** | **2.9100e-003** | **3.5000e-004** | **3.2600e-003** | **0.0000** | **25.0166** | **25.0166** | **1.8900e-003** | **0.0000** | **25.0639** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0457 | 0.4440 | 0.3004 | 5.0000e-004 | | 0.0248 | 0.0248 | | 0.0235 | 0.0235 | 0.0000 | 44.7430 | 44.7430 | 9.9300e-003 | 0.0000 | 44.9913 |
| **Total** | **0.0457** | **0.4440** | **0.3004** | **5.0000e-004** | **0.0407** | **0.0248** | **0.0654** | **0.0223** | **0.0235** | **0.0458** | **0.0000** | **44.7430** | **44.7430** | **9.9300e-003** | **0.0000** | **44.9913** |

### 3.3 Maintenance Activities - 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 | 2.0800e-003 | 0.0730 | 0.0152 | 1.8000e-004 | 3.8500e-003 | 2.8000e-004 | 4.1300e-003 | 1.0600e-003 | 2.7000e-004 | 1.3300e-003 | 0.0000 | 17.7308 | 17.7308 | 1.6000e-003 | 0.0000 | 17.7707 |
| Vendor | 1.6000e-004 | 4.0000e-003 | 1.1000e-003 | 1.0000e-005 | 2.0000e-004 | 3.0000e-005 | 2.3000e-004 | 6.0000e-005 | 3.0000e-005 | 9.0000e-005 | 0.0000 | 0.8030 | 0.8030 | 7.0000e-005 | 0.0000 | 0.8046 |
| Worker | 3.5900e-003 | 2.8400e-003 | 0.0273 | 7.0000e-005 | 6.7400e-003 | 5.0000e-005 | 6.7900e-003 | 1.7900e-003 | 5.0000e-005 | 1.8400e-003 | 0.0000 | 6.4829 | 6.4829 | 2.2000e-004 | 0.0000 | 6.4885 |
| **Total** | **5.8300e-003** | **0.0799** | **0.0436** | **2.6000e-004** | **0.0108** | **3.6000e-004** | **0.0112** | **2.9100e-003** | **3.5000e-004** | **3.2600e-003** | **0.0000** | **25.0166** | **25.0166** | **1.8900e-003** | **0.0000** | **25.0639** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **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

**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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-004 |
| Unmitigated | 0.1456 | 0.0000 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-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 |
| Consumer Products | 0.1455 | | | | | 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 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-004 |
| **Total** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

**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 | 0.1455 | | | | | 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 | 3.5000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 6.7000e-004 | 6.7000e-004 | 0.0000 | 0.0000 | 7.1000e-004 |
| **Total** | **0.1456** | **0.0000** | **3.5000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **6.7000e-004** | **6.7000e-004** | **0.0000** | **0.0000** | **7.1000e-004** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Tecolote Creek – Genesee Mitigated

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 37.26 | 1000sqft | 0.86 | 37,260.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Tecolote Creek – Genesee Mitigated - San Diego County, Summer

Project Characteristics - Mitigated

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i.

Grading - Data provided by applicant.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 18630 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 55890 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 30.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 46.20 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 450.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 56.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 8,616,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 5.8230 | 53.5727 | 40.1099 | 0.0807 | 7.2880 | 2.9174 | 10.2054 | 3.5652 | 2.8285 | 6.3937 | 0.0000 | 7,964.5671 | 7,964.5671 | 1.0793 | 0.0000 | 7,991.5491 |
| **Maximum** | **5.8230** | **53.5727** | **40.1099** | **0.0807** | **7.2880** | **2.9174** | **10.2054** | **3.5652** | **2.8285** | **6.3937** | **0.0000** | **7,964.5671** | **7,964.5671** | **1.0793** | **0.0000** | **7,991.5491** |

### 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 | 1.5104 | 28.1107 | 42.7527 | 0.0807 | 3.6842 | 0.1584 | 3.8427 | 1.7131 | 0.1573 | 1.8704 | 0.0000 | 7,964.5671 | 7,964.5671 | 1.0793 | 0.0000 | 7,991.5491 |
| **Maximum** | **1.5104** | **28.1107** | **42.7527** | **0.0807** | **3.6842** | **0.1584** | **3.8427** | **1.7131** | **0.1573** | **1.8704** | **0.0000** | **7,964.5671** | **7,964.5671** | **1.0793** | **0.0000** | **7,991.5491** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **74.06** | **47.53** | **-6.59** | **0.00** | **49.45** | **94.57** | **62.35** | **51.95** | **94.44** | **70.75** | **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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

### 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 4/11/2018 | 5 | 30 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 56.00 | 2.00 | 450.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0443 | 29.5800 | 20.0152 | 0.0334 | | 1.6501 | 1.6501 | | 1.5623 | 1.5623 | | 3,286.6960 | 3,286.6960 | 0.7296 | | 3,304.9350 |
| **Total** | **3.0443** | **29.5800** | **20.0152** | **0.0334** | **6.0221** | **1.6501** | **7.6722** | **3.3102** | **1.5623** | **4.8725** | | **3,286.6960** | **3,286.6960** | **0.7296** | | **3,304.9350** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1373 | 4.7711 | 0.9840 | 0.0121 | 0.2621 | 0.0188 | 0.2809 | 0.0718 | 0.0180 | 0.0898 | | 1,312.1318 | 1,312.1318 | 0.1157 | | 1,315.0235 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2384 | 0.1717 | 1.9170 | 5.0500e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 502.4458 | 502.4458 | 0.0172 | | 502.8756 |
| **Total** | **0.3860** | **5.2063** | **2.9708** | **0.0177** | **0.7357** | **0.0241** | **0.7598** | **0.1978** | **0.0230** | **0.2207** | | **1,874.2155** | **1,874.2155** | **0.1376** | | **1,877.6552** |

## 3.3 Maintenance Activities - 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5818 | 12.3469 | 21.5283 | 0.0334 | | 0.0948 | 0.0948 | | 0.0948 | 0.0948 | 0.0000 | 3,286.6960 | 3,286.6960 | 0.7296 | | 3,304.9350 |
| **Total** | **0.5818** | **12.3469** | **21.5283** | **0.0334** | **2.7099** | **0.0948** | **2.8048** | **1.4896** | **0.0948** | **1.5844** | **0.0000** | **3,286.6960** | **3,286.6960** | **0.7296** | | **3,304.9350** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1373 | 4.7711 | 0.9840 | 0.0121 | 0.2621 | 0.0188 | 0.2809 | 0.0718 | 0.0180 | 0.0898 | | 1,312.1318 | 1,312.1318 | 0.1157 | | 1,315.0235 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2384 | 0.1717 | 1.9170 | 5.0500e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 502.4458 | 502.4458 | 0.0172 | | 502.8756 |
| **Total** | **0.3860** | **5.2063** | **2.9708** | **0.0177** | **0.7357** | **0.0241** | **0.7598** | **0.1978** | **0.0230** | **0.2207** | | **1,874.2155** | **1,874.2155** | **0.1376** | | **1,877.6552** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| Unmitigated | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| Consumer Products | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

### 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 | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

## 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**

| 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

# Tecolote Creek – Genesee

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 37.26 | 1000sqft | 0.86 | 37,260.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Grading - Data provided by applicant.

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 18630 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 55890 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 30.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 46.20 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 450.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 56.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 8,616,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 5.8246 | 53.5895 | 40.1198 | 0.0807 | 7.2880 | 2.9183 | 10.2063 | 3.5652 | 2.8293 | 6.3945 | 0.0000 | 7,965.9212 | 7,965.9212 | 1.0797 | 0.0000 | 7,992.9137 |
| **Maximum** | **5.8246** | **53.5895** | **40.1198** | **0.0807** | **7.2880** | **2.9183** | **10.2063** | **3.5652** | **2.8293** | **6.3945** | **0.0000** | **7,965.9212** | **7,965.9212** | **1.0797** | **0.0000** | **7,992.9137** |

### 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 | 5.8246 | 53.5895 | 40.1198 | 0.0807 | 3.6842 | 2.9183 | 6.6025 | 1.7131 | 2.8293 | 4.5424 | 0.0000 | 7,965.9212 | 7,965.9212 | 1.0797 | 0.0000 | 7,992.9137 |
| **Maximum** | **5.8246** | **53.5895** | **40.1198** | **0.0807** | **3.6842** | **2.9183** | **6.6025** | **1.7131** | **2.8293** | **4.5424** | **0.0000** | **7,965.9212** | **7,965.9212** | **1.0797** | **0.0000** | **7,992.9137** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **49.45** | **0.00** | **35.31** | **51.95** | **0.00** | **28.96** | **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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

### 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 4/11/2018 | 5 | 30 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 56.00 | 2.00 | 450.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0459 | 29.5967 | 20.0251 | 0.0334 | | 1.6509 | 1.6509 | | 1.5631 | 1.5631 | | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **3.0459** | **29.5967** | **20.0251** | **0.0334** | **6.0221** | **1.6509** | **7.6730** | **3.3102** | **1.5631** | **4.8733** | | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1373 | 4.7711 | 0.9840 | 0.0121 | 0.2621 | 0.0188 | 0.2809 | 0.0718 | 0.0180 | 0.0898 | | 1,312.1318 | 1,312.1318 | 0.1157 | | 1,315.0235 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2384 | 0.1717 | 1.9170 | 5.0500e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 502.4458 | 502.4458 | 0.0172 | | 502.8756 |
| **Total** | **0.3860** | **5.2063** | **2.9708** | **0.0177** | **0.7357** | **0.0241** | **0.7598** | **0.1978** | **0.0230** | **0.2207** | | **1,874.2155** | **1,874.2155** | **0.1376** | | **1,877.6552** |

## 3.3 Maintenance Activities - 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0459 | 29.5967 | 20.0251 | 0.0334 | | 1.6509 | 1.6509 | | 1.5631 | 1.5631 | 0.0000 | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **3.0459** | **29.5967** | **20.0251** | **0.0334** | **2.7099** | **1.6509** | **4.3609** | **1.4896** | **1.5631** | **3.0527** | **0.0000** | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1373 | 4.7711 | 0.9840 | 0.0121 | 0.2621 | 0.0188 | 0.2809 | 0.0718 | 0.0180 | 0.0898 | | 1,312.1318 | 1,312.1318 | 0.1157 | | 1,315.0235 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2384 | 0.1717 | 1.9170 | 5.0500e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 502.4458 | 502.4458 | 0.0172 | | 502.8756 |
| **Total** | **0.3860** | **5.2063** | **2.9708** | **0.0177** | **0.7357** | **0.0241** | **0.7598** | **0.1978** | **0.0230** | **0.2207** | | **1,874.2155** | **1,874.2155** | **0.1376** | | **1,877.6552** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| Unmitigated | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| Consumer Products | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

### 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 | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

## 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**

| 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

# Tecolote Creek – Genesee Mitigated

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 37.26 | 1000sqft | 0.86 | 37,260.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - Mitigated

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i.

Grading - Data provided by applicant.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 18630 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 55890 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |

Tecolote Creek – Genesee Mitigated - San Diego County, Winter

| | | | |
|---|---|---|---|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 30.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 46.20 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 450.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 56.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 8,616,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 5.8583 | 53.6453 | 40.0927 | 0.0802 | 7.2880 | 2.9179 | 10.2059 | 3.5652 | 2.8289 | 6.3941 | 0.0000 | 7,910.5526 | 7,910.5526 | 1.0831 | 0.0000 | 7,937.6294 |
| **Maximum** | **5.8583** | **53.6453** | **40.0927** | **0.0802** | **7.2880** | **2.9179** | **10.2059** | **3.5652** | **2.8289** | **6.3941** | **0.0000** | **7,910.5526** | **7,910.5526** | **1.0831** | **0.0000** | **7,937.6294** |

### 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 | 1.5457 | 28.1833 | 42.7356 | 0.0802 | 3.6842 | 0.1589 | 3.8431 | 1.7131 | 0.1577 | 1.8708 | 0.0000 | 7,910.5526 | 7,910.5526 | 1.0831 | 0.0000 | 7,937.6294 |
| **Maximum** | **1.5457** | **28.1833** | **42.7356** | **0.0802** | **3.6842** | **0.1589** | **3.8431** | **1.7131** | **0.1577** | **1.8708** | **0.0000** | **7,910.5526** | **7,910.5526** | **1.0831** | **0.0000** | **7,937.6294** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **73.62** | **47.46** | **-6.59** | **0.00** | **49.45** | **94.55** | **62.34** | **51.95** | **94.43** | **70.74** | **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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

### 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 4/11/2018 | 5 | 30 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 56.00 | 2.00 | 450.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5427 | 10.5575 | 18.2536 | 0.0296 | | 0.0395 | 0.0395 | | 0.0395 | 0.0395 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **0.5427** | **10.5575** | **18.2536** | **0.0296** | **0.2386** | **0.0395** | **0.2781** | **0.0258** | **0.0395** | **0.0652** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0443 | 29.5800 | 20.0152 | 0.0334 | | 1.6501 | 1.6501 | | 1.5623 | 1.5623 | | 3,286.6960 | 3,286.6960 | 0.7296 | | 3,304.9350 |
| **Total** | **3.0443** | **29.5800** | **20.0152** | **0.0334** | **6.0221** | **1.6501** | **7.6722** | **3.3102** | **1.5623** | **4.8725** | | **3,286.6960** | **3,286.6960** | **0.7296** | | **3,304.9350** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1412 | 4.8221 | 1.0580 | 0.0119 | 0.2621 | 0.0192 | 0.2813 | 0.0718 | 0.0184 | 0.0902 | | 1,290.3582 | 1,290.3582 | 0.1200 | | 1,293.3581 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2693 | 0.1928 | 1.8185 | 4.7400e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 471.7033 | 471.7033 | 0.0164 | | 472.1119 |
| **Total** | **0.4213** | **5.2789** | **2.9537** | **0.0171** | **0.7357** | **0.0246** | **0.7603** | **0.1978** | **0.0234** | **0.2212** | | **1,820.2010** | **1,820.2010** | **0.1414** | | **1,823.7354** |

## 3.3 Maintenance Activities - 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5818 | 12.3469 | 21.5283 | 0.0334 | | 0.0948 | 0.0948 | | 0.0948 | 0.0948 | 0.0000 | 3,286.6960 | 3,286.6960 | 0.7296 | | 3,304.9350 |
| **Total** | **0.5818** | **12.3469** | **21.5283** | **0.0334** | **2.7099** | **0.0948** | **2.8048** | **1.4896** | **0.0948** | **1.5844** | **0.0000** | **3,286.6960** | **3,286.6960** | **0.7296** | | **3,304.9350** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1412 | 4.8221 | 1.0580 | 0.0119 | 0.2621 | 0.0192 | 0.2813 | 0.0718 | 0.0184 | 0.0902 | | 1,290.3582 | 1,290.3582 | 0.1200 | | 1,293.3581 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2693 | 0.1928 | 1.8185 | 4.7400e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 471.7033 | 471.7033 | 0.0164 | | 472.1119 |
| **Total** | **0.4213** | **5.2789** | **2.9537** | **0.0171** | **0.7357** | **0.0246** | **0.7603** | **0.1978** | **0.0234** | **0.2212** | | **1,820.2010** | **1,820.2010** | **0.1414** | | **1,823.7354** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| Unmitigated | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| Consumer Products | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

### 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 | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

## 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**

| 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

# Tecolote Creek – Genesee

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 37.26 | 1000sqft | 0.86 | 37,260.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics -

Land Use -

Construction Phase - Applicant provided information

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Applicant provided information

Trips and VMT - Applicant provided information

Grading - Data provided by applicant.

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 18630 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 55890 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 8.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 30.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 1.50 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 8.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 46.20 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 450.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 56.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 8,616,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 5.8599 | 53.6621 | 40.1026 | 0.0802 | 7.2880 | 2.9188 | 10.2068 | 3.5652 | 2.8297 | 6.3949 | 0.0000 | 7,911.9067 | 7,911.9067 | 1.0835 | 0.0000 | 7,938.9940 |
| **Maximum** | **5.8599** | **53.6621** | **40.1026** | **0.0802** | **7.2880** | **2.9188** | **10.2068** | **3.5652** | **2.8297** | **6.3949** | **0.0000** | **7,911.9067** | **7,911.9067** | **1.0835** | **0.0000** | **7,938.9940** |

### 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 | 5.8599 | 53.6621 | 40.1026 | 0.0802 | 3.6842 | 2.9188 | 6.6030 | 1.7131 | 2.8297 | 4.5428 | 0.0000 | 7,911.9067 | 7,911.9067 | 1.0835 | 0.0000 | 7,938.9940 |
| **Maximum** | **5.8599** | **53.6621** | **40.1026** | **0.0802** | **3.6842** | **2.9188** | **6.6030** | **1.7131** | **2.8297** | **4.5428** | **0.0000** | **7,911.9067** | **7,911.9067** | **1.0835** | **0.0000** | **7,938.9940** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **49.45** | **0.00** | **35.31** | **51.95** | **0.00** | **28.96** | **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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

### 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | **0.0000** | **1.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | **0.0000** | **8.7100e-003** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 3/1/2018 | 3/5/2018 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 3/1/2018 | 4/11/2018 | 5 | 30 | |

**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 |
|---|---|---|---|---|---|
| Pump Use | Graders | 0 | 0.00 | 187 | 0.41 |
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Pump Use | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Maintenance Activities | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Pumps | 2 | 8.00 | 84 | 0.74 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Maintenance Activities | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 7 | 56.00 | 2.00 | 450.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 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 | | | | | 0.5303 | 0.0000 | 0.5303 | 0.0573 | 0.0000 | 0.0573 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.5303** | **1.2432** | **1.7735** | **0.0573** | **1.2432** | **1.3005** | | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.2 Pump Use - 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 | | | | | 0.2386 | 0.0000 | 0.2386 | 0.0258 | 0.0000 | 0.0258 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.3927 | 18.7865 | 17.1239 | 0.0296 | | 1.2432 | 1.2432 | | 1.2432 | 1.2432 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2121 | | 2,808.9590 |
| **Total** | **2.3927** | **18.7865** | **17.1239** | **0.0296** | **0.2386** | **1.2432** | **1.4818** | **0.0258** | **1.2432** | **1.2690** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2121** | | **2,808.9590** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0459 | 29.5967 | 20.0251 | 0.0334 | | 1.6509 | 1.6509 | | 1.5631 | 1.5631 | | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **3.0459** | **29.5967** | **20.0251** | **0.0334** | **6.0221** | **1.6509** | **7.6730** | **3.3102** | **1.5631** | **4.8733** | | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1412 | 4.8221 | 1.0580 | 0.0119 | 0.2621 | 0.0192 | 0.2813 | 0.0718 | 0.0184 | 0.0902 | | 1,290.3582 | 1,290.3582 | 0.1200 | | 1,293.3581 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2693 | 0.1928 | 1.8185 | 4.7400e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 471.7033 | 471.7033 | 0.0164 | | 472.1119 |
| **Total** | **0.4213** | **5.2789** | **2.9537** | **0.0171** | **0.7357** | **0.0246** | **0.7603** | **0.1978** | **0.0234** | **0.2212** | | **1,820.2010** | **1,820.2010** | **0.1414** | | **1,823.7354** |

## 3.3 Maintenance Activities - 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.0459 | 29.5967 | 20.0251 | 0.0334 | | 1.6509 | 1.6509 | | 1.5631 | 1.5631 | 0.0000 | 3,288.0501 | 3,288.0501 | 0.7300 | | 3,306.2996 |
| **Total** | **3.0459** | **29.5967** | **20.0251** | **0.0334** | **2.7099** | **1.6509** | **4.3609** | **1.4896** | **1.5631** | **3.0527** | **0.0000** | **3,288.0501** | **3,288.0501** | **0.7300** | | **3,306.2996** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.1412 | 4.8221 | 1.0580 | 0.0119 | 0.2621 | 0.0192 | 0.2813 | 0.0718 | 0.0184 | 0.0902 | | 1,290.3582 | 1,290.3582 | 0.1200 | | 1,293.3581 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2693 | 0.1928 | 1.8185 | 4.7400e-003 | 0.4600 | 3.3100e-003 | 0.4633 | 0.1220 | 3.0500e-003 | 0.1251 | | 471.7033 | 471.7033 | 0.0164 | | 472.1119 |
| **Total** | **0.4213** | **5.2789** | **2.9537** | **0.0171** | **0.7357** | **0.0246** | **0.7603** | **0.1978** | **0.0234** | **0.2212** | | **1,820.2010** | **1,820.2010** | **0.1414** | | **1,823.7354** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| Unmitigated | 0.7977 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-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 |
| Consumer Products | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

### 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 | 0.7974 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.6000e-004 | 4.0000e-005 | 3.8400e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.1500e-003 | 8.1500e-003 | 2.0000e-005 | | 8.7100e-003 |
| **Total** | **0.7977** | **4.0000e-005** | **3.8400e-003** | **0.0000** | | **1.0000e-005** | **1.0000e-005** | | **1.0000e-005** | **1.0000e-005** | | **8.1500e-003** | **8.1500e-003** | **2.0000e-005** | | **8.7100e-003** |

## 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**

| 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

# Mission Hills Canyon Creek; Titus Segment

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 0.58 | 1000sqft | 0.01 | 578.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Hills Canyon Creek; Titus Segment - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Adjusted for project specifics.

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Data provided by applicant.

Trips and VMT - Adjusted for project specifics

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i or better.

Grading -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 289 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 867 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| 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 |
| tblConstEquipMitigation | Tier | No Change | Tier 3 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblLandUse | LandUseSquareFeet | 580.00 | 578.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.72 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 26.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 134,125.00 | 0.00 |

## 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 | | | | | |
| 2017 | 0.0180 | 0.1731 | 0.1067 | 2.0000e-004 | 0.0420 | 8.9100e-003 | 0.0509 | 0.0223 | 8.3700e-003 | 0.0306 | 0.0000 | 17.9542 | 17.9542 | 3.7100e-003 | 0.0000 | 18.0470 |
| 2018 | 9.7000e-004 | 9.8200e-003 | 5.9100e-003 | 1.0000e-005 | 3.3800e-003 | 4.6000e-004 | 3.8400e-003 | 1.7500e-003 | 4.2000e-004 | 2.1700e-003 | 0.0000 | 1.0689 | 1.0689 | 2.6000e-004 | 0.0000 | 1.0754 |
| **Maximum** | **0.0180** | **0.1731** | **0.1067** | **2.0000e-004** | **0.0420** | **8.9100e-003** | **0.0509** | **0.0223** | **8.3700e-003** | **0.0306** | **0.0000** | **17.9542** | **17.9542** | **3.7100e-003** | **0.0000** | **18.0470** |

### 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 | | | | | |
| 2017 | 5.3100e-003 | 0.0817 | 0.1122 | 2.0000e-004 | 0.0204 | 3.9900e-003 | 0.0244 | 0.0104 | 3.9800e-003 | 0.0144 | 0.0000 | 17.9542 | 17.9542 | 3.7100e-003 | 0.0000 | 18.0470 |
| 2018 | 3.3000e-004 | 4.6800e-003 | 6.4200e-003 | 1.0000e-005 | 1.7300e-003 | 2.0000e-004 | 1.9200e-003 | 8.4000e-004 | 2.0000e-004 | 1.0400e-003 | 0.0000 | 1.0689 | 1.0689 | 2.6000e-004 | 0.0000 | 1.0754 |
| **Maximum** | **5.3100e-003** | **0.0817** | **0.1122** | **2.0000e-004** | **0.0204** | **3.9900e-003** | **0.0244** | **0.0104** | **3.9800e-003** | **0.0144** | **0.0000** | **17.9542** | **17.9542** | **3.7100e-003** | **0.0000** | **18.0470** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **70.33** | **52.77** | **-5.39** | **0.00** | **51.14** | **55.28** | **51.86** | **53.08** | **52.45** | **52.90** | **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 | 11-28-2017 | 2-27-2018 | 0.1960 | 0.0876 |
| | | Highest | 0.1960 | 0.0876 |

## 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 | 2.2600e-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 | 0.0000 | 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** | **2.2600e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

## 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 | 2.2600e-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 | 0.0000 | 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** | **2.2600e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 12/12/2017 | 12/14/2017 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 12/13/2017 | 1/1/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 4 | 48.00 | 2.00 | 26.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0400e-003 | 0.0306 | 0.0259 | 4.0000e-005 | | 2.1200e-003 | 2.1200e-003 | | 2.1200e-003 | 2.1200e-003 | 0.0000 | 3.8152 | 3.8152 | 3.3000e-004 | 0.0000 | 3.8234 |
| **Total** | **4.0400e-003** | **0.0306** | **0.0259** | **4.0000e-005** | | **2.1200e-003** | **2.1200e-003** | | **2.1200e-003** | **2.1200e-003** | **0.0000** | **3.8152** | **3.8152** | **3.3000e-004** | **0.0000** | **3.8234** |

### Unmitigated Construction Off-Site

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

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 8.9000e-004 | 0.0203 | 0.0274 | 4.0000e-005 | | 1.4200e-003 | 1.4200e-003 | | 1.4200e-003 | 1.4200e-003 | 0.0000 | 3.8152 | 3.8152 | 3.3000e-004 | 0.0000 | 3.8234 |
| **Total** | **8.9000e-004** | **0.0203** | **0.0274** | **4.0000e-005** | | **1.4200e-003** | **1.4200e-003** | | **1.4200e-003** | **1.4200e-003** | **0.0000** | **3.8152** | **3.8152** | **3.3000e-004** | **0.0000** | **3.8234** |

### Mitigated Construction Off-Site

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

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0391 | 0.0000 | 0.0391 | 0.0215 | 0.0000 | 0.0215 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0123 | 0.1352 | 0.0679 | 1.1000e-004 | | 6.7200e-003 | 6.7200e-003 | | 6.1900e-003 | 6.1900e-003 | 0.0000 | 10.3528 | 10.3528 | 3.1700e-003 | 0.0000 | 10.4321 |
| **Total** | **0.0123** | **0.1352** | **0.0679** | **1.1000e-004** | **0.0391** | **6.7200e-003** | **0.0459** | **0.0215** | **6.1900e-003** | **0.0277** | **0.0000** | **10.3528** | **10.3528** | **3.1700e-003** | **0.0000** | **10.4321** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-004 | 4.2700e-003 | 8.7000e-004 | 1.0000e-005 | 2.2000e-004 | 2.0000e-005 | 2.4000e-004 | 6.0000e-005 | 2.0000e-005 | 8.0000e-005 | 0.0000 | 0.9595 | 0.9595 | 9.0000e-005 | 0.0000 | 0.9617 |
| Vendor | 8.0000e-005 | 1.8600e-003 | 5.3000e-004 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 1.0000e-004 | 2.0000e-005 | 2.0000e-005 | 4.0000e-005 | 0.0000 | 0.3491 | 0.3491 | 3.0000e-005 | 0.0000 | 0.3499 |
| Worker | 1.4700e-003 | 1.1900e-003 | 0.0115 | 3.0000e-005 | 2.5000e-003 | 2.0000e-005 | 2.5200e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.4776 | 2.4776 | 9.0000e-005 | 0.0000 | 2.4800 |
| **Total** | **1.6800e-003** | **7.3200e-003** | **0.0129** | **4.0000e-005** | **2.8100e-003** | **6.0000e-005** | **2.8600e-003** | **7.4000e-004** | **6.0000e-005** | **8.0000e-004** | **0.0000** | **3.7863** | **3.7863** | **2.1000e-004** | **0.0000** | **3.7915** |

## 3.3 Maintenance Activities - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0176 | 0.0000 | 0.0176 | 9.6800e-003 | 0.0000 | 9.6800e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.7400e-003 | 0.0541 | 0.0720 | 1.1000e-004 | | 2.5000e-003 | 2.5000e-003 | | 2.5000e-003 | 2.5000e-003 | 0.0000 | 10.3528 | 10.3528 | 3.1700e-003 | 0.0000 | 10.4321 |
| **Total** | **2.7400e-003** | **0.0541** | **0.0720** | **1.1000e-004** | **0.0176** | **2.5000e-003** | **0.0201** | **9.6800e-003** | **2.5000e-003** | **0.0122** | **0.0000** | **10.3528** | **10.3528** | **3.1700e-003** | **0.0000** | **10.4321** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-004 | 4.2700e-003 | 8.7000e-004 | 1.0000e-005 | 2.2000e-004 | 2.0000e-005 | 2.4000e-004 | 6.0000e-005 | 2.0000e-005 | 8.0000e-005 | 0.0000 | 0.9595 | 0.9595 | 9.0000e-005 | 0.0000 | 0.9617 |
| Vendor | 8.0000e-005 | 1.8600e-003 | 5.3000e-004 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 1.0000e-004 | 2.0000e-005 | 2.0000e-005 | 4.0000e-005 | 0.0000 | 0.3491 | 0.3491 | 3.0000e-005 | 0.0000 | 0.3499 |
| Worker | 1.4700e-003 | 1.1900e-003 | 0.0115 | 3.0000e-005 | 2.5000e-003 | 2.0000e-005 | 2.5200e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.4776 | 2.4776 | 9.0000e-005 | 0.0000 | 2.4800 |
| **Total** | **1.6800e-003** | **7.3200e-003** | **0.0129** | **4.0000e-005** | **2.8100e-003** | **6.0000e-005** | **2.8600e-003** | **7.4000e-004** | **6.0000e-005** | **8.0000e-004** | **0.0000** | **3.7863** | **3.7863** | **2.1000e-004** | **0.0000** | **3.7915** |

## 3.3 Maintenance Activities - 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 | | | | | 3.0100e-003 | 0.0000 | 3.0100e-003 | 1.6600e-003 | 0.0000 | 1.6600e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.6000e-004 | 9.3000e-003 | 5.0300e-003 | 1.0000e-005 | | 4.6000e-004 | 4.6000e-004 | | 4.2000e-004 | 4.2000e-004 | 0.0000 | 0.7837 | 0.7837 | 2.4000e-004 | 0.0000 | 0.7898 |
| **Total** | **8.6000e-004** | **9.3000e-003** | **5.0300e-003** | **1.0000e-005** | **3.0100e-003** | **4.6000e-004** | **3.4700e-003** | **1.6600e-003** | **4.2000e-004** | **2.0800e-003** | **0.0000** | **0.7837** | **0.7837** | **2.4000e-004** | **0.0000** | **0.7898** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.0000e-004 | 6.0000e-005 | 0.0000 | 1.7000e-004 | 0.0000 | 1.7000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0732 | 0.0732 | 1.0000e-005 | 0.0000 | 0.0733 |
| Vendor | 1.0000e-005 | 1.3000e-004 | 4.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0268 | 0.0268 | 0.0000 | 0.0000 | 0.0268 |
| Worker | 1.0000e-004 | 8.0000e-005 | 7.8000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.1852 | 0.1852 | 1.0000e-005 | 0.0000 | 0.1854 |
| **Total** | **1.2000e-004** | **5.1000e-004** | **8.8000e-004** | **0.0000** | **3.7000e-004** | **0.0000** | **3.7000e-004** | **9.0000e-005** | **0.0000** | **9.0000e-005** | **0.0000** | **0.2852** | **0.2852** | **2.0000e-005** | **0.0000** | **0.2856** |

## 3.3 Maintenance Activities - 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.3500e-003 | 0.0000 | 1.3500e-003 | 7.4000e-004 | 0.0000 | 7.4000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.1000e-004 | 4.1600e-003 | 5.5400e-003 | 1.0000e-005 | | 1.9000e-004 | 1.9000e-004 | | 1.9000e-004 | 1.9000e-004 | 0.0000 | 0.7837 | 0.7837 | 2.4000e-004 | 0.0000 | 0.7898 |
| **Total** | **2.1000e-004** | **4.1600e-003** | **5.5400e-003** | **1.0000e-005** | **1.3500e-003** | **1.9000e-004** | **1.5400e-003** | **7.4000e-004** | **1.9000e-004** | **9.3000e-004** | **0.0000** | **0.7837** | **0.7837** | **2.4000e-004** | **0.0000** | **0.7898** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.0000e-004 | 6.0000e-005 | 0.0000 | 1.7000e-004 | 0.0000 | 1.7000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0732 | 0.0732 | 1.0000e-005 | 0.0000 | 0.0733 |
| Vendor | 1.0000e-005 | 1.3000e-004 | 4.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0268 | 0.0268 | 0.0000 | 0.0000 | 0.0268 |
| Worker | 1.0000e-004 | 8.0000e-005 | 7.8000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.1852 | 0.1852 | 1.0000e-005 | 0.0000 | 0.1854 |
| **Total** | **1.2000e-004** | **5.1000e-004** | **8.8000e-004** | **0.0000** | **3.7000e-004** | **0.0000** | **3.7000e-004** | **9.0000e-005** | **0.0000** | **9.0000e-005** | **0.0000** | **0.2852** | **0.2852** | **2.0000e-005** | **0.0000** | **0.2856** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.2600e-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 | 2.2600e-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 |

## 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 | 2.2600e-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 |
| **Total** | **2.2600e-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** |

### 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 | 2.2600e-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 |
| **Total** | **2.2600e-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** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Mission Hills Canyon Creek; Titus Segment

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 0.58 | 1000sqft | 0.01 | 578.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Hills Canyon Creek; Titus Segment - San Diego County, Annual

Project Characteristics -

Land Use -

Construction Phase - Adjusted for project specifics.

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Data provided by applicant.

Trips and VMT - Adjusted for project specifics

Grading -

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 289 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 867 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblLandUse | LandUseSquareFeet | 580.00 | 578.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.72 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 26.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 134,125.00 | 0.00 |

## 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 | | | | | |
| 2017 | 0.0181 | 0.1732 | 0.1067 | 2.0000e-004 | 0.0420 | 8.9200e-003 | 0.0509 | 0.0223 | 8.3700e-003 | 0.0306 | 0.0000 | 17.9624 | 17.9624 | 3.7100e-003 | 0.0000 | 18.0552 |
| 2018 | 9.7000e-004 | 9.8200e-003 | 5.9200e-003 | 1.0000e-005 | 3.3800e-003 | 4.6000e-004 | 3.8400e-003 | 1.7500e-003 | 4.2000e-004 | 2.1700e-003 | 0.0000 | 1.0695 | 1.0695 | 2.6000e-004 | 0.0000 | 1.0760 |
| **Maximum** | **0.0181** | **0.1732** | **0.1067** | **2.0000e-004** | **0.0420** | **8.9200e-003** | **0.0509** | **0.0223** | **8.3700e-003** | **0.0306** | **0.0000** | **17.9624** | **17.9624** | **3.7100e-003** | **0.0000** | **18.0552** |

### 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 | | | | | |
| 2017 | 0.0181 | 0.1732 | 0.1067 | 2.0000e-004 | 0.0204 | 8.9200e-003 | 0.0293 | 0.0104 | 8.3700e-003 | 0.0188 | 0.0000 | 17.9623 | 17.9623 | 3.7100e-003 | 0.0000 | 18.0552 |
| 2018 | 9.7000e-004 | 9.8200e-003 | 5.9200e-003 | 1.0000e-005 | 1.7300e-003 | 4.6000e-004 | 2.1800e-003 | 8.4000e-004 | 4.2000e-004 | 1.2600e-003 | 0.0000 | 1.0695 | 1.0695 | 2.6000e-004 | 0.0000 | 1.0760 |
| **Maximum** | **0.0181** | **0.1732** | **0.1067** | **2.0000e-004** | **0.0204** | **8.9200e-003** | **0.0293** | **0.0104** | **8.3700e-003** | **0.0188** | **0.0000** | **17.9623** | **17.9623** | **3.7100e-003** | **0.0000** | **18.0552** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **51.14** | **0.00** | **42.39** | **53.08** | **0.00** | **38.83** | **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 | 11-28-2017 | 2-27-2018 | 0.1961 | 0.1961 |
| | | Highest | 0.1961 | 0.1961 |

## 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 | 2.2600e-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 | 0.0000 | 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** | **2.2600e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

## 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 | 2.2600e-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 | 0.0000 | 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** | **2.2600e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 12/12/2017 | 12/14/2017 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 12/13/2017 | 1/1/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 4 | 48.00 | 2.00 | 26.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0400e-003 | 0.0306 | 0.0259 | 4.0000e-005 | | 2.1200e-003 | 2.1200e-003 | | 2.1200e-003 | 2.1200e-003 | 0.0000 | 3.8152 | 3.8152 | 3.3000e-004 | 0.0000 | 3.8234 |
| **Total** | **4.0400e-003** | **0.0306** | **0.0259** | **4.0000e-005** | **0.0000** | **2.1200e-003** | **2.1200e-003** | **0.0000** | **2.1200e-003** | **2.1200e-003** | **0.0000** | **3.8152** | **3.8152** | **3.3000e-004** | **0.0000** | **3.8234** |

### Unmitigated Construction Off-Site

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

## 3.2 Pump Use - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 4.0400e-003 | 0.0306 | 0.0259 | 4.0000e-005 | | 2.1200e-003 | 2.1200e-003 | | 2.1200e-003 | 2.1200e-003 | 0.0000 | 3.8152 | 3.8152 | 3.3000e-004 | 0.0000 | 3.8234 |
| **Total** | **4.0400e-003** | **0.0306** | **0.0259** | **4.0000e-005** | **0.0000** | **2.1200e-003** | **2.1200e-003** | **0.0000** | **2.1200e-003** | **2.1200e-003** | **0.0000** | **3.8152** | **3.8152** | **3.3000e-004** | **0.0000** | **3.8234** |

### Mitigated Construction Off-Site

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

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0391 | 0.0000 | 0.0391 | 0.0215 | 0.0000 | 0.0215 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0123 | 0.1353 | 0.0680 | 1.1000e-004 | | 6.7300e-003 | 6.7300e-003 | | 6.1900e-003 | 6.1900e-003 | 0.0000 | 10.3609 | 10.3609 | 3.1700e-003 | 0.0000 | 10.4403 |
| **Total** | **0.0123** | **0.1353** | **0.0680** | **1.1000e-004** | **0.0391** | **6.7300e-003** | **0.0459** | **0.0215** | **6.1900e-003** | **0.0277** | **0.0000** | **10.3609** | **10.3609** | **3.1700e-003** | **0.0000** | **10.4403** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-004 | 4.2700e-003 | 8.7000e-004 | 1.0000e-005 | 2.2000e-004 | 2.0000e-005 | 2.4000e-004 | 6.0000e-005 | 2.0000e-005 | 8.0000e-005 | 0.0000 | 0.9595 | 0.9595 | 9.0000e-005 | 0.0000 | 0.9617 |
| Vendor | 8.0000e-005 | 1.8600e-003 | 5.3000e-004 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 1.0000e-004 | 2.0000e-005 | 2.0000e-005 | 4.0000e-005 | 0.0000 | 0.3491 | 0.3491 | 3.0000e-005 | 0.0000 | 0.3499 |
| Worker | 1.4700e-003 | 1.1900e-003 | 0.0115 | 3.0000e-005 | 2.5000e-003 | 2.0000e-005 | 2.5200e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.4776 | 2.4776 | 9.0000e-005 | 0.0000 | 2.4800 |
| **Total** | **1.6800e-003** | **7.3200e-003** | **0.0129** | **4.0000e-005** | **2.8100e-003** | **6.0000e-005** | **2.8600e-003** | **7.4000e-004** | **6.0000e-005** | **8.0000e-004** | **0.0000** | **3.7863** | **3.7863** | **2.1000e-004** | **0.0000** | **3.7915** |

## 3.3 Maintenance Activities - 2017

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 0.0176 | 0.0000 | 0.0176 | 9.6800e-003 | 0.0000 | 9.6800e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0123 | 0.1353 | 0.0680 | 1.1000e-004 | | 6.7300e-003 | 6.7300e-003 | | 6.1900e-003 | 6.1900e-003 | 0.0000 | 10.3609 | 10.3609 | 3.1700e-003 | 0.0000 | 10.4403 |
| **Total** | **0.0123** | **0.1353** | **0.0680** | **1.1000e-004** | **0.0176** | **6.7300e-003** | **0.0243** | **9.6800e-003** | **6.1900e-003** | **0.0159** | **0.0000** | **10.3609** | **10.3609** | **3.1700e-003** | **0.0000** | **10.4403** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.3000e-004 | 4.2700e-003 | 8.7000e-004 | 1.0000e-005 | 2.2000e-004 | 2.0000e-005 | 2.4000e-004 | 6.0000e-005 | 2.0000e-005 | 8.0000e-005 | 0.0000 | 0.9595 | 0.9595 | 9.0000e-005 | 0.0000 | 0.9617 |
| Vendor | 8.0000e-005 | 1.8600e-003 | 5.3000e-004 | 0.0000 | 9.0000e-005 | 2.0000e-005 | 1.0000e-004 | 2.0000e-005 | 2.0000e-005 | 4.0000e-005 | 0.0000 | 0.3491 | 0.3491 | 3.0000e-005 | 0.0000 | 0.3499 |
| Worker | 1.4700e-003 | 1.1900e-003 | 0.0115 | 3.0000e-005 | 2.5000e-003 | 2.0000e-005 | 2.5200e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.4776 | 2.4776 | 9.0000e-005 | 0.0000 | 2.4800 |
| **Total** | **1.6800e-003** | **7.3200e-003** | **0.0129** | **4.0000e-005** | **2.8100e-003** | **6.0000e-005** | **2.8600e-003** | **7.4000e-004** | **6.0000e-005** | **8.0000e-004** | **0.0000** | **3.7863** | **3.7863** | **2.1000e-004** | **0.0000** | **3.7915** |

## 3.3 Maintenance Activities - 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 | | | | | 3.0100e-003 | 0.0000 | 3.0100e-003 | 1.6600e-003 | 0.0000 | 1.6600e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.6000e-004 | 9.3100e-003 | 5.0400e-003 | 1.0000e-005 | | 4.6000e-004 | 4.6000e-004 | | 4.2000e-004 | 4.2000e-004 | 0.0000 | 0.7844 | 0.7844 | 2.4000e-004 | 0.0000 | 0.7905 |
| **Total** | **8.6000e-004** | **9.3100e-003** | **5.0400e-003** | **1.0000e-005** | **3.0100e-003** | **4.6000e-004** | **3.4700e-003** | **1.6600e-003** | **4.2000e-004** | **2.0800e-003** | **0.0000** | **0.7844** | **0.7844** | **2.4000e-004** | **0.0000** | **0.7905** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.0000e-004 | 6.0000e-005 | 0.0000 | 1.7000e-004 | 0.0000 | 1.7000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0732 | 0.0732 | 1.0000e-005 | 0.0000 | 0.0733 |
| Vendor | 1.0000e-005 | 1.3000e-004 | 4.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0268 | 0.0268 | 0.0000 | 0.0000 | 0.0268 |
| Worker | 1.0000e-004 | 8.0000e-005 | 7.8000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.1852 | 0.1852 | 1.0000e-005 | 0.0000 | 0.1854 |
| **Total** | **1.2000e-004** | **5.1000e-004** | **8.8000e-004** | **0.0000** | **3.7000e-004** | **0.0000** | **3.7000e-004** | **9.0000e-005** | **0.0000** | **9.0000e-005** | **0.0000** | **0.2852** | **0.2852** | **2.0000e-005** | **0.0000** | **0.2856** |

## 3.3 Maintenance Activities - 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.3500e-003 | 0.0000 | 1.3500e-003 | 7.4000e-004 | 0.0000 | 7.4000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.6000e-004 | 9.3100e-003 | 5.0400e-003 | 1.0000e-005 | | 4.6000e-004 | 4.6000e-004 | | 4.2000e-004 | 4.2000e-004 | 0.0000 | 0.7844 | 0.7844 | 2.4000e-004 | 0.0000 | 0.7905 |
| **Total** | **8.6000e-004** | **9.3100e-003** | **5.0400e-003** | **1.0000e-005** | **1.3500e-003** | **4.6000e-004** | **1.8100e-003** | **7.4000e-004** | **4.2000e-004** | **1.1600e-003** | **0.0000** | **0.7844** | **0.7844** | **2.4000e-004** | **0.0000** | **0.7905** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 1.0000e-005 | 3.0000e-004 | 6.0000e-005 | 0.0000 | 1.7000e-004 | 0.0000 | 1.7000e-004 | 4.0000e-005 | 0.0000 | 4.0000e-005 | 0.0000 | 0.0732 | 0.0732 | 1.0000e-005 | 0.0000 | 0.0733 |
| Vendor | 1.0000e-005 | 1.3000e-004 | 4.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0268 | 0.0268 | 0.0000 | 0.0000 | 0.0268 |
| Worker | 1.0000e-004 | 8.0000e-005 | 7.8000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.1852 | 0.1852 | 1.0000e-005 | 0.0000 | 0.1854 |
| **Total** | **1.2000e-004** | **5.1000e-004** | **8.8000e-004** | **0.0000** | **3.7000e-004** | **0.0000** | **3.7000e-004** | **9.0000e-005** | **0.0000** | **9.0000e-005** | **0.0000** | **0.2852** | **0.2852** | **2.0000e-005** | **0.0000** | **0.2856** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.2600e-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 | 2.2600e-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 |

## 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 | 2.2600e-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 |
| **Total** | **2.2600e-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** |

### 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 | 2.2600e-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 |
| **Total** | **2.2600e-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** |

## 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Mission Hills Canyon Creek; Titus Segment

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 0.58 | 1000sqft | 0.01 | 578.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Hills Canyon Creek; Titus Segment - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Adjusted for project specifics.

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Data provided by applicant.

Trips and VMT - Adjusted for project specifics

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i or better.

Grading -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 289 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 867 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| 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 |
| tblConstEquipMitigation | Tier | No Change | Tier 3 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblLandUse | LandUseSquareFeet | 580.00 | 578.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.72 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 26.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 134,125.00 | 0.00 |

## 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 | | | | | |
| 2017 | 4.8466 | 42.2830 | 29.7524 | 0.0533 | 6.4643 | 2.4596 | 8.9239 | 3.4281 | 2.3763 | 5.8044 | 0.0000 | 5,226.0826 | 5,226.0826 | 0.8156 | 0.0000 | 5,246.4731 |
| 2018 | 1.9464 | 19.6021 | 11.9027 | 0.0235 | 6.7816 | 0.9184 | 7.7000 | 3.5060 | 0.8451 | 4.3511 | 0.0000 | 2,380.6111 | 2,380.6111 | 0.5717 | 0.0000 | 2,394.9033 |
| **Maximum** | **4.8466** | **42.2830** | **29.7524** | **0.0533** | **6.7816** | **2.4596** | **8.9239** | **3.5060** | **2.3763** | **5.8044** | **0.0000** | **5,226.0826** | **5,226.0826** | **0.8156** | **0.0000** | **5,246.4731** |

### 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 | | | | | |
| 2017 | 1.2708 | 22.9331 | 31.3868 | 0.0533 | 3.1521 | 1.3417 | 4.4938 | 1.6075 | 1.3412 | 2.9487 | 0.0000 | 5,226.0826 | 5,226.0826 | 0.8156 | 0.0000 | 5,246.4731 |
| 2018 | 0.6529 | 9.3248 | 12.9083 | 0.0235 | 3.4694 | 0.3926 | 3.8620 | 1.6853 | 0.3921 | 2.0775 | 0.0000 | 2,380.6111 | 2,380.6111 | 0.5717 | 0.0000 | 2,394.9033 |
| **Maximum** | **1.2708** | **22.9331** | **31.3868** | **0.0533** | **3.4694** | **1.3417** | **4.4938** | **1.6853** | **1.3412** | **2.9487** | **0.0000** | **5,226.0826** | **5,226.0826** | **0.8156** | **0.0000** | **5,246.4731** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **71.68** | **47.87** | **-6.34** | **0.00** | **50.01** | **48.66** | **49.74** | **52.51** | **46.19** | **50.51** | **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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

### 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 12/12/2017 | 12/14/2017 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 12/13/2017 | 1/1/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

### 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 4 | 48.00 | 2.00 | 26.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | | **1.4159** | **1.4159** | | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.5920 | 13.5176 | 18.2536 | 0.0296 | | 0.9472 | 0.9472 | | 0.9472 | 0.9472 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **0.5920** | **13.5176** | **18.2536** | **0.0296** | | **0.9472** | **0.9472** | | **0.9472** | **0.9472** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.8954 | 20.7961 | 10.4504 | 0.0172 | | 1.0345 | 1.0345 | | 0.9518 | 0.9518 | | 1,755.6944 | 1,755.6944 | 0.5379 | | 1,769.1429 |
| **Total** | **1.8954** | **20.7961** | **10.4504** | **0.0172** | **6.0221** | **1.0345** | **7.0566** | **3.3102** | **0.9518** | **4.2620** | | **1,755.6944** | **1,755.6944** | **0.5379** | | **1,769.1429** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0200 | 0.6434 | 0.1294 | 1.5100e-003 | 0.0343 | 3.6300e-003 | 0.0380 | 9.3600e-003 | 3.4700e-003 | 0.0128 | | 163.8181 | 163.8181 | 0.0146 | | 164.1819 |
| Vendor | 0.0119 | 0.2823 | 0.0775 | 5.6000e-004 | 0.0135 | 2.6300e-003 | 0.0162 | 3.9000e-003 | 2.5200e-003 | 6.4100e-003 | | 59.8206 | 59.8206 | 4.9500e-003 | | 59.9443 |
| Worker | 0.2256 | 0.1664 | 1.8528 | 4.4500e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 443.0939 | 443.0939 | 0.0164 | | 443.5050 |
| **Total** | **0.2575** | **1.0922** | **2.0597** | **6.5200e-003** | **0.4422** | **9.1600e-003** | **0.4514** | **0.1179** | **8.6700e-003** | **0.1265** | | **666.7326** | **666.7326** | **0.0359** | | **667.6311** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.4213 | 8.3234 | 11.0735 | 0.0172 | | 0.3853 | 0.3853 | | 0.3853 | 0.3853 | 0.0000 | 1,755.6944 | 1,755.6944 | 0.5379 | | 1,769.1429 |
| **Total** | **0.4213** | **8.3234** | **11.0735** | **0.0172** | **2.7099** | **0.3853** | **3.0953** | **1.4896** | **0.3853** | **1.8749** | **0.0000** | **1,755.6944** | **1,755.6944** | **0.5379** | | **1,769.1429** |

## 3.3 Maintenance Activities - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0200 | 0.6434 | 0.1294 | 1.5100e-003 | 0.0343 | 3.6300e-003 | 0.0380 | 9.3600e-003 | 3.4700e-003 | 0.0128 | | 163.8181 | 163.8181 | 0.0146 | | 164.1819 |
| Vendor | 0.0119 | 0.2823 | 0.0775 | 5.6000e-004 | 0.0135 | 2.6300e-003 | 0.0162 | 3.9000e-003 | 2.5200e-003 | 6.4100e-003 | | 59.8206 | 59.8206 | 4.9500e-003 | | 59.9443 |
| Worker | 0.2256 | 0.1664 | 1.8528 | 4.4500e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 443.0939 | 443.0939 | 0.0164 | | 443.5050 |
| **Total** | **0.2575** | **1.0922** | **2.0597** | **6.5200e-003** | **0.4422** | **9.1600e-003** | **0.4514** | **0.1179** | **8.6700e-003** | **0.1265** | | **666.7326** | **666.7326** | **0.0359** | | **667.6311** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7148 | 18.6008 | 10.0679 | 0.0172 | | 0.9112 | 0.9112 | | 0.8383 | 0.8383 | | 1,727.8509 | 1,727.8509 | 0.5379 | | 1,741.2985 |
| **Total** | **1.7148** | **18.6008** | **10.0679** | **0.0172** | **6.0221** | **0.9112** | **6.9333** | **3.3102** | **0.8383** | **4.1486** | | **1,727.8509** | **1,727.8509** | **0.5379** | | **1,741.2985** |

## 3.3 Maintenance Activities - 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 | 0.0170 | 0.5907 | 0.1218 | 1.4900e-003 | 0.3517 | 2.3200e-003 | 0.3540 | 0.0872 | 2.2200e-003 | 0.0895 | | 162.4544 | 162.4544 | 0.0143 | | 162.8124 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2316** | **1.0014** | **1.8348** | **6.3800e-003** | **0.7595** | **7.2200e-003** | **0.7667** | **0.1957** | **6.8100e-003** | **0.2025** | | **652.7602** | **652.7602** | **0.0338** | | **653.6048** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.4213 | 8.3234 | 11.0735 | 0.0172 | | 0.3853 | 0.3853 | | 0.3853 | 0.3853 | 0.0000 | 1,727.8509 | 1,727.8509 | 0.5379 | | 1,741.2985 |
| **Total** | **0.4213** | **8.3234** | **11.0735** | **0.0172** | **2.7099** | **0.3853** | **3.0953** | **1.4896** | **0.3853** | **1.8749** | **0.0000** | **1,727.8509** | **1,727.8509** | **0.5379** | | **1,741.2985** |

### 3.3 Maintenance Activities - 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 | 0.0170 | 0.5907 | 0.1218 | 1.4900e-003 | 0.3517 | 2.3200e-003 | 0.3540 | 0.0872 | 2.2200e-003 | 0.0895 | | 162.4544 | 162.4544 | 0.0143 | | 162.8124 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2316** | **1.0014** | **1.8348** | **6.3800e-003** | **0.7595** | **7.2200e-003** | **0.7667** | **0.1957** | **6.8100e-003** | **0.2025** | | **652.7602** | **652.7602** | **0.0338** | | **653.6048** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| Unmitigated | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

**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 | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

## 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**

| 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

# Mission Hills Canyon Creek; Titus Segment

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 0.58 | 1000sqft | 0.01 | 578.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Hills Canyon Creek; Titus Segment - San Diego County, Summer

Project Characteristics -

Land Use -

Construction Phase - Adjusted for project specifics.

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Data provided by applicant.

Trips and VMT - Adjusted for project specifics

Grading -

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 289 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 867 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblLandUse | LandUseSquareFeet | 580.00 | 578.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.72 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 26.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 134,125.00 | 0.00 |

## 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 | | | | | |
| 2017 | 4.8486 | 42.3034 | 29.7628 | 0.0533 | 6.4643 | 2.4607 | 8.9249 | 3.4281 | 2.3773 | 5.8054 | 0.0000 | 5,227.4584 | 5,227.4584 | 0.8160 | 0.0000 | 5,247.8594 |
| 2018 | 1.9480 | 19.6188 | 11.9125 | 0.0236 | 6.7816 | 0.9193 | 7.7009 | 3.5060 | 0.8459 | 4.3519 | 0.0000 | 2,381.9652 | 2,381.9652 | 0.5721 | 0.0000 | 2,396.2679 |
| **Maximum** | **4.8486** | **42.3034** | **29.7628** | **0.0533** | **6.7816** | **2.4607** | **8.9249** | **3.5060** | **2.3773** | **5.8054** | **0.0000** | **5,227.4584** | **5,227.4584** | **0.8160** | **0.0000** | **5,247.8594** |

### 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 | | | | | |
| 2017 | 4.8486 | 42.3034 | 29.7628 | 0.0533 | 3.1521 | 2.4607 | 5.6128 | 1.6075 | 2.3773 | 3.9848 | 0.0000 | 5,227.4584 | 5,227.4584 | 0.8160 | 0.0000 | 5,247.8594 |
| 2018 | 1.9480 | 19.6188 | 11.9125 | 0.0236 | 3.4694 | 0.9193 | 4.3888 | 1.6853 | 0.8459 | 2.5313 | 0.0000 | 2,381.9652 | 2,381.9652 | 0.5721 | 0.0000 | 2,396.2679 |
| **Maximum** | **4.8486** | **42.3034** | **29.7628** | **0.0533** | **3.4694** | **2.4607** | **5.6128** | **1.6853** | **2.3773** | **3.9848** | **0.0000** | **5,227.4584** | **5,227.4584** | **0.8160** | **0.0000** | **5,247.8594** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **50.01** | **0.00** | **39.84** | **52.51** | **0.00** | **35.85** | **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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

### 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 12/12/2017 | 12/14/2017 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 12/13/2017 | 1/1/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

### 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 4 | 48.00 | 2.00 | 26.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.8974 | 20.8165 | 10.4608 | 0.0172 | | 1.0356 | 1.0356 | | 0.9528 | 0.9528 | | 1,757.0702 | 1,757.0702 | 0.5384 | | 1,770.5293 |
| **Total** | **1.8974** | **20.8165** | **10.4608** | **0.0172** | **6.0221** | **1.0356** | **7.0577** | **3.3102** | **0.9528** | **4.2630** | | **1,757.0702** | **1,757.0702** | **0.5384** | | **1,770.5293** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0200 | 0.6434 | 0.1294 | 1.5100e-003 | 0.0343 | 3.6300e-003 | 0.0380 | 9.3600e-003 | 3.4700e-003 | 0.0128 | | 163.8181 | 163.8181 | 0.0146 | | 164.1819 |
| Vendor | 0.0119 | 0.2823 | 0.0775 | 5.6000e-004 | 0.0135 | 2.6300e-003 | 0.0162 | 3.9000e-003 | 2.5200e-003 | 6.4100e-003 | | 59.8206 | 59.8206 | 4.9500e-003 | | 59.9443 |
| Worker | 0.2256 | 0.1664 | 1.8528 | 4.4500e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 443.0939 | 443.0939 | 0.0164 | | 443.5050 |
| **Total** | **0.2575** | **1.0922** | **2.0597** | **6.5200e-003** | **0.4422** | **9.1600e-003** | **0.4514** | **0.1179** | **8.6700e-003** | **0.1265** | | **666.7326** | **666.7326** | **0.0359** | | **667.6311** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.8974 | 20.8165 | 10.4608 | 0.0172 | | 1.0356 | 1.0356 | | 0.9528 | 0.9528 | 0.0000 | 1,757.0702 | 1,757.0702 | 0.5384 | | 1,770.5293 |
| **Total** | **1.8974** | **20.8165** | **10.4608** | **0.0172** | **2.7099** | **1.0356** | **3.7456** | **1.4896** | **0.9528** | **2.4424** | **0.0000** | **1,757.0702** | **1,757.0702** | **0.5384** | | **1,770.5293** |

## 3.3 Maintenance Activities - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0200 | 0.6434 | 0.1294 | 1.5100e-003 | 0.0343 | 3.6300e-003 | 0.0380 | 9.3600e-003 | 3.4700e-003 | 0.0128 | | 163.8181 | 163.8181 | 0.0146 | | 164.1819 |
| Vendor | 0.0119 | 0.2823 | 0.0775 | 5.6000e-004 | 0.0135 | 2.6300e-003 | 0.0162 | 3.9000e-003 | 2.5200e-003 | 6.4100e-003 | | 59.8206 | 59.8206 | 4.9500e-003 | | 59.9443 |
| Worker | 0.2256 | 0.1664 | 1.8528 | 4.4500e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 443.0939 | 443.0939 | 0.0164 | | 443.5050 |
| **Total** | **0.2575** | **1.0922** | **2.0597** | **6.5200e-003** | **0.4422** | **9.1600e-003** | **0.4514** | **0.1179** | **8.6700e-003** | **0.1265** | | **666.7326** | **666.7326** | **0.0359** | | **667.6311** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7164 | 18.6175 | 10.0778 | 0.0172 | | 0.9121 | 0.9121 | | 0.8391 | 0.8391 | | 1,729.2050 | 1,729.2050 | 0.5383 | | 1,742.6631 |
| **Total** | **1.7164** | **18.6175** | **10.0778** | **0.0172** | **6.0221** | **0.9121** | **6.9342** | **3.3102** | **0.8391** | **4.1494** | | **1,729.2050** | **1,729.2050** | **0.5383** | | **1,742.6631** |

## 3.3 Maintenance Activities - 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 | 0.0170 | 0.5907 | 0.1218 | 1.4900e-003 | 0.3517 | 2.3200e-003 | 0.3540 | 0.0872 | 2.2200e-003 | 0.0895 | | 162.4544 | 162.4544 | 0.0143 | | 162.8124 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2316** | **1.0014** | **1.8348** | **6.3800e-003** | **0.7595** | **7.2200e-003** | **0.7667** | **0.1957** | **6.8100e-003** | **0.2025** | | **652.7602** | **652.7602** | **0.0338** | | **653.6048** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7164 | 18.6175 | 10.0778 | 0.0172 | | 0.9121 | 0.9121 | | 0.8391 | 0.8391 | 0.0000 | 1,729.2050 | 1,729.2050 | 0.5383 | | 1,742.6631 |
| **Total** | **1.7164** | **18.6175** | **10.0778** | **0.0172** | **2.7099** | **0.9121** | **3.6220** | **1.4896** | **0.8391** | **2.3287** | **0.0000** | **1,729.2050** | **1,729.2050** | **0.5383** | | **1,742.6631** |

### 3.3 Maintenance Activities - 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 | 0.0170 | 0.5907 | 0.1218 | 1.4900e-003 | 0.3517 | 2.3200e-003 | 0.3540 | 0.0872 | 2.2200e-003 | 0.0895 | | 162.4544 | 162.4544 | 0.0143 | | 162.8124 |
| Vendor | 0.0103 | 0.2635 | 0.0698 | 5.6000e-004 | 0.0135 | 2.0600e-003 | 0.0156 | 3.9000e-003 | 1.9700e-003 | 5.8700e-003 | | 59.6380 | 59.6380 | 4.7300e-003 | | 59.7561 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2316** | **1.0014** | **1.8348** | **6.3800e-003** | **0.7595** | **7.2200e-003** | **0.7667** | **0.1957** | **6.8100e-003** | **0.2025** | | **652.7602** | **652.7602** | **0.0338** | | **653.6048** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| Unmitigated | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

**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 | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

## 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**

| 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

# Mission Hills Canyon Creek; Titus Segment

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 0.58 | 1000sqft | 0.01 | 578.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Hills Canyon Creek; Titus Segment - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Adjusted for project specifics.

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Data provided by applicant.

Trips and VMT - Adjusted for project specifics

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - All construction equipment greater than 75hp will be Tier 4i or better.

Grading -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 289 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 867 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| 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 |
| tblConstEquipMitigation | Tier | No Change | Tier 3 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblLandUse | LandUseSquareFeet | 580.00 | 578.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.72 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 26.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 134,125.00 | 0.00 |

## 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 | | | | | |
| 2017 | 4.8767 | 42.3120 | 29.6853 | 0.0530 | 6.4643 | 2.4597 | 8.9240 | 3.4281 | 2.3764 | 5.8045 | 0.0000 | 5,194.9449 | 5,194.9449 | 0.8158 | 0.0000 | 5,215.3387 |
| 2018 | 1.9738 | 19.6270 | 11.8348 | 0.0232 | 6.7816 | 0.9185 | 7.7001 | 3.5060 | 0.8452 | 4.3512 | 0.0000 | 2,350.0662 | 2,350.0662 | 0.5718 | 0.0000 | 2,364.3613 |
| **Maximum** | **4.8767** | **42.3120** | **29.6853** | **0.0530** | **6.7816** | **2.4597** | **8.9240** | **3.5060** | **2.3764** | **5.8045** | **0.0000** | **5,194.9449** | **5,194.9449** | **0.8158** | **0.0000** | **5,215.3387** |

### 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 | | | | | |
| 2017 | 1.3010 | 22.9622 | 31.3198 | 0.0530 | 3.1521 | 1.3418 | 4.4940 | 1.6075 | 1.3413 | 2.9488 | 0.0000 | 5,194.9449 | 5,194.9449 | 0.8158 | 0.0000 | 5,215.3387 |
| 2018 | 0.6803 | 9.3496 | 12.8404 | 0.0232 | 3.4694 | 0.3926 | 3.8621 | 1.6853 | 0.3922 | 2.0776 | 0.0000 | 2,350.0662 | 2,350.0662 | 0.5718 | 0.0000 | 2,364.3613 |
| **Maximum** | **1.3010** | **22.9622** | **31.3198** | **0.0530** | **3.4694** | **1.3418** | **4.4940** | **1.6853** | **1.3413** | **2.9488** | **0.0000** | **5,194.9449** | **5,194.9449** | **0.8158** | **0.0000** | **5,215.3387** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **71.08** | **47.83** | **-6.36** | **0.00** | **50.01** | **48.66** | **49.74** | **52.51** | **46.19** | **50.51** | **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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

### 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 12/12/2017 | 12/14/2017 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 12/13/2017 | 1/1/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

### 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 4 | 48.00 | 2.00 | 26.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | | **1.4159** | **1.4159** | | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.5920 | 13.5176 | 18.2536 | 0.0296 | | 0.9472 | 0.9472 | | 0.9472 | 0.9472 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **0.5920** | **13.5176** | **18.2536** | **0.0296** | | **0.9472** | **0.9472** | | **0.9472** | **0.9472** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.8954 | 20.7961 | 10.4504 | 0.0172 | | 1.0345 | 1.0345 | | 0.9518 | 0.9518 | | 1,755.6944 | 1,755.6944 | 0.5379 | | 1,769.1429 |
| **Total** | **1.8954** | **20.7961** | **10.4504** | **0.0172** | **6.0221** | **1.0345** | **7.0566** | **3.3102** | **0.9518** | **4.2620** | | **1,755.6944** | **1,755.6944** | **0.5379** | | **1,769.1429** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0205 | 0.6512 | 0.1393 | 1.4900e-003 | 0.0343 | 3.7000e-003 | 0.0380 | 9.3600e-003 | 3.5400e-003 | 0.0129 | | 161.2039 | 161.2039 | 0.0151 | | 161.5817 |
| Vendor | 0.0124 | 0.2832 | 0.0855 | 5.5000e-004 | 0.0135 | 2.6700e-003 | 0.0162 | 3.9000e-003 | 2.5600e-003 | 6.4500e-003 | | 58.3663 | 58.3663 | 5.2700e-003 | | 58.4980 |
| Worker | 0.2547 | 0.1869 | 1.7679 | 4.1800e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 416.0248 | 416.0248 | 0.0157 | | 416.4171 |
| **Total** | **0.2876** | **1.1212** | **1.9926** | **6.2200e-003** | **0.4422** | **9.2700e-003** | **0.4515** | **0.1179** | **8.7800e-003** | **0.1266** | | **635.5950** | **635.5950** | **0.0361** | | **636.4968** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.4213 | 8.3234 | 11.0735 | 0.0172 | | 0.3853 | 0.3853 | | 0.3853 | 0.3853 | 0.0000 | 1,755.6944 | 1,755.6944 | 0.5379 | | 1,769.1429 |
| **Total** | **0.4213** | **8.3234** | **11.0735** | **0.0172** | **2.7099** | **0.3853** | **3.0953** | **1.4896** | **0.3853** | **1.8749** | **0.0000** | **1,755.6944** | **1,755.6944** | **0.5379** | | **1,769.1429** |

## 3.3 Maintenance Activities - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0205 | 0.6512 | 0.1393 | 1.4900e-003 | 0.0343 | 3.7000e-003 | 0.0380 | 9.3600e-003 | 3.5400e-003 | 0.0129 | | 161.2039 | 161.2039 | 0.0151 | | 161.5817 |
| Vendor | 0.0124 | 0.2832 | 0.0855 | 5.5000e-004 | 0.0135 | 2.6700e-003 | 0.0162 | 3.9000e-003 | 2.5600e-003 | 6.4500e-003 | | 58.3663 | 58.3663 | 5.2700e-003 | | 58.4980 |
| Worker | 0.2547 | 0.1869 | 1.7679 | 4.1800e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 416.0248 | 416.0248 | 0.0157 | | 416.4171 |
| **Total** | **0.2876** | **1.1212** | **1.9926** | **6.2200e-003** | **0.4422** | **9.2700e-003** | **0.4515** | **0.1179** | **8.7800e-003** | **0.1266** | | **635.5950** | **635.5950** | **0.0361** | | **636.4968** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7148 | 18.6008 | 10.0679 | 0.0172 | | 0.9112 | 0.9112 | | 0.8383 | 0.8383 | | 1,727.8509 | 1,727.8509 | 0.5379 | | 1,741.2985 |
| **Total** | **1.7148** | **18.6008** | **10.0679** | **0.0172** | **6.0221** | **0.9112** | **6.9333** | **3.3102** | **0.8383** | **4.1486** | | **1,727.8509** | **1,727.8509** | **0.5379** | | **1,741.2985** |

## 3.3 Maintenance Activities - 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 | 0.0175 | 0.5970 | 0.1310 | 1.4700e-003 | 0.3517 | 2.3800e-003 | 0.3540 | 0.0872 | 2.2800e-003 | 0.0895 | | 159.7586 | 159.7586 | 0.0149 | | 160.1301 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2590** | **1.0262** | **1.7669** | **6.0700e-003** | **0.7595** | **7.3200e-003** | **0.7668** | **0.1957** | **6.9000e-003** | **0.2026** | | **622.2153** | **622.2153** | **0.0339** | | **623.0628** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.4213 | 8.3234 | 11.0735 | 0.0172 | | 0.3853 | 0.3853 | | 0.3853 | 0.3853 | 0.0000 | 1,727.8509 | 1,727.8509 | 0.5379 | | 1,741.2985 |
| **Total** | **0.4213** | **8.3234** | **11.0735** | **0.0172** | **2.7099** | **0.3853** | **3.0953** | **1.4896** | **0.3853** | **1.8749** | **0.0000** | **1,727.8509** | **1,727.8509** | **0.5379** | | **1,741.2985** |

### 3.3 Maintenance Activities - 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 | 0.0175 | 0.5970 | 0.1310 | 1.4700e-003 | 0.3517 | 2.3800e-003 | 0.3540 | 0.0872 | 2.2800e-003 | 0.0895 | | 159.7586 | 159.7586 | 0.0149 | | 160.1301 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2590** | **1.0262** | **1.7669** | **6.0700e-003** | **0.7595** | **7.3200e-003** | **0.7668** | **0.1957** | **6.9000e-003** | **0.2026** | | **622.2153** | **622.2153** | **0.0339** | | **623.0628** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| Unmitigated | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

**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 | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

## 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**

| 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

# Mission Hills Canyon Creek; Titus Segment

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 0.58 | 1000sqft | 0.01 | 578.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Mission Hills Canyon Creek; Titus Segment - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Adjusted for project specifics.

Off-road Equipment - Adjusted for project specifics

Off-road Equipment - Data provided by applicant.

Trips and VMT - Adjusted for project specifics

Grading -

Vehicle Trips - No operational emissions

Consumer Products - No operational emissions

Area Coating - No operational emissions

Energy Use - No operational emissions

Water And Wastewater - No operational emissions

Solid Waste - No operational emissions

Construction Off-road Equipment Mitigation - PDF

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaCoating | Area_Nonresidential_Exterior | 289 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 867 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 6.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstructionPhase | NumDays | 2.00 | 14.00 |
| tblConstructionPhase | NumDays | 1.00 | 3.00 |
| tblEnergyUse | LightingElect | 2.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24E | 4.27 | 0.00 |
| tblEnergyUse | NT24NG | 7.25 | 0.00 |
| tblEnergyUse | T24E | 1.21 | 0.00 |
| tblEnergyUse | T24NG | 4.31 | 0.00 |
| tblLandUse | LandUseSquareFeet | 580.00 | 578.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 8.00 |
| tblSolidWaste | SolidWasteGenerationRate | 0.72 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 26.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 0.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 48.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | IndoorWaterUseRate | 134,125.00 | 0.00 |

## 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 | | | | | |
| 2017 | 4.8787 | 42.3325 | 29.6957 | 0.0530 | 6.4643 | 2.4608 | 8.9251 | 3.4281 | 2.3774 | 5.8055 | 0.0000 | 5,196.3208 | 5,196.3208 | 0.8162 | 0.0000 | 5,216.7251 |
| 2018 | 1.9754 | 19.6437 | 11.8446 | 0.0232 | 6.7816 | 0.9194 | 7.7010 | 3.5060 | 0.8460 | 4.3520 | 0.0000 | 2,351.4203 | 2,351.4203 | 0.5722 | 0.0000 | 2,365.7259 |
| **Maximum** | **4.8787** | **42.3325** | **29.6957** | **0.0530** | **6.7816** | **2.4608** | **8.9251** | **3.5060** | **2.3774** | **5.8055** | **0.0000** | **5,196.3208** | **5,196.3208** | **0.8162** | **0.0000** | **5,216.7251** |

### 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 | | | | | |
| 2017 | 4.8787 | 42.3325 | 29.6957 | 0.0530 | 3.1521 | 2.4608 | 5.6129 | 1.6075 | 2.3774 | 3.9849 | 0.0000 | 5,196.3207 | 5,196.3207 | 0.8162 | 0.0000 | 5,216.7251 |
| 2018 | 1.9754 | 19.6437 | 11.8446 | 0.0232 | 3.4694 | 0.9194 | 4.3888 | 1.6853 | 0.8460 | 2.5314 | 0.0000 | 2,351.4203 | 2,351.4203 | 0.5722 | 0.0000 | 2,365.7259 |
| **Maximum** | **4.8787** | **42.3325** | **29.6957** | **0.0530** | **3.4694** | **2.4608** | **5.6129** | **1.6853** | **2.3774** | **3.9849** | **0.0000** | **5,196.3207** | **5,196.3207** | **0.8162** | **0.0000** | **5,216.7251** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **50.01** | **0.00** | **39.84** | **52.51** | **0.00** | **35.85** | **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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

### 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | **0.0000** | **1.4000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Pump Use | Site Preparation | 12/12/2017 | 12/14/2017 | 5 | 3 | |
| 2 | Maintenance Activities | Grading | 12/13/2017 | 1/1/2018 | 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: 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 |
|---|---|---|---|---|---|
| Pump Use | Pumps | 6 | 6.00 | 84 | 0.74 |
| Maintenance Activities | Excavators | 1 | 8.00 | 158 | 0.38 |
| Maintenance Activities | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Maintenance Activities | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| Maintenance Activities | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

### 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pump Use | 6 | 0.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Maintenance Activities | 4 | 48.00 | 2.00 | 26.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Pump Use - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 2.6937 | 20.3947 | 17.2423 | 0.0296 | | 1.4159 | 1.4159 | | 1.4159 | 1.4159 | 0.0000 | 2,803.6556 | 2,803.6556 | 0.2417 | | 2,809.6990 |
| **Total** | **2.6937** | **20.3947** | **17.2423** | **0.0296** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **1.4159** | **1.4159** | **0.0000** | **2,803.6556** | **2,803.6556** | **0.2417** | | **2,809.6990** |

## 3.2 Pump Use - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 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 |
| **Total** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | | **0.0000** |

## 3.3 Maintenance Activities - 2017

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.8974 | 20.8165 | 10.4608 | 0.0172 | | 1.0356 | 1.0356 | | 0.9528 | 0.9528 | | 1,757.0702 | 1,757.0702 | 0.5384 | | 1,770.5293 |
| **Total** | **1.8974** | **20.8165** | **10.4608** | **0.0172** | **6.0221** | **1.0356** | **7.0577** | **3.3102** | **0.9528** | **4.2630** | | **1,757.0702** | **1,757.0702** | **0.5384** | | **1,770.5293** |

## 3.3 Maintenance Activities - 2017

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0205 | 0.6512 | 0.1393 | 1.4900e-003 | 0.0343 | 3.7000e-003 | 0.0380 | 9.3600e-003 | 3.5400e-003 | 0.0129 | | 161.2039 | 161.2039 | 0.0151 | | 161.5817 |
| Vendor | 0.0124 | 0.2832 | 0.0855 | 5.5000e-004 | 0.0135 | 2.6700e-003 | 0.0162 | 3.9000e-003 | 2.5600e-003 | 6.4500e-003 | | 58.3663 | 58.3663 | 5.2700e-003 | | 58.4980 |
| Worker | 0.2547 | 0.1869 | 1.7679 | 4.1800e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 416.0248 | 416.0248 | 0.0157 | | 416.4171 |
| **Total** | **0.2876** | **1.1212** | **1.9926** | **6.2200e-003** | **0.4422** | **9.2700e-003** | **0.4515** | **0.1179** | **8.7800e-003** | **0.1266** | | **635.5950** | **635.5950** | **0.0361** | | **636.4968** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.8974 | 20.8165 | 10.4608 | 0.0172 | | 1.0356 | 1.0356 | | 0.9528 | 0.9528 | 0.0000 | 1,757.0702 | 1,757.0702 | 0.5384 | | 1,770.5293 |
| **Total** | **1.8974** | **20.8165** | **10.4608** | **0.0172** | **2.7099** | **1.0356** | **3.7456** | **1.4896** | **0.9528** | **2.4424** | **0.0000** | **1,757.0702** | **1,757.0702** | **0.5384** | | **1,770.5293** |

## 3.3 Maintenance Activities - 2017

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0205 | 0.6512 | 0.1393 | 1.4900e-003 | 0.0343 | 3.7000e-003 | 0.0380 | 9.3600e-003 | 3.5400e-003 | 0.0129 | | 161.2039 | 161.2039 | 0.0151 | | 161.5817 |
| Vendor | 0.0124 | 0.2832 | 0.0855 | 5.5000e-004 | 0.0135 | 2.6700e-003 | 0.0162 | 3.9000e-003 | 2.5600e-003 | 6.4500e-003 | | 58.3663 | 58.3663 | 5.2700e-003 | | 58.4980 |
| Worker | 0.2547 | 0.1869 | 1.7679 | 4.1800e-003 | 0.3943 | 2.9000e-003 | 0.3972 | 0.1046 | 2.6800e-003 | 0.1073 | | 416.0248 | 416.0248 | 0.0157 | | 416.4171 |
| **Total** | **0.2876** | **1.1212** | **1.9926** | **6.2200e-003** | **0.4422** | **9.2700e-003** | **0.4515** | **0.1179** | **8.7800e-003** | **0.1266** | | **635.5950** | **635.5950** | **0.0361** | | **636.4968** |

## 3.3 Maintenance Activities - 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 | | | | | 6.0221 | 0.0000 | 6.0221 | 3.3102 | 0.0000 | 3.3102 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7164 | 18.6175 | 10.0778 | 0.0172 | | 0.9121 | 0.9121 | | 0.8391 | 0.8391 | | 1,729.2050 | 1,729.2050 | 0.5383 | | 1,742.6631 |
| **Total** | **1.7164** | **18.6175** | **10.0778** | **0.0172** | **6.0221** | **0.9121** | **6.9342** | **3.3102** | **0.8391** | **4.1494** | | **1,729.2050** | **1,729.2050** | **0.5383** | | **1,742.6631** |

## 3.3 Maintenance Activities - 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 | 0.0175 | 0.5970 | 0.1310 | 1.4700e-003 | 0.3517 | 2.3800e-003 | 0.3540 | 0.0872 | 2.2800e-003 | 0.0895 | | 159.7586 | 159.7586 | 0.0149 | | 160.1301 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2590** | **1.0262** | **1.7669** | **6.0700e-003** | **0.7595** | **7.3200e-003** | **0.7668** | **0.1957** | **6.9000e-003** | **0.2026** | | **622.2153** | **622.2153** | **0.0339** | | **623.0628** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | | | | | 2.7099 | 0.0000 | 2.7099 | 1.4896 | 0.0000 | 1.4896 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.7164 | 18.6175 | 10.0778 | 0.0172 | | 0.9121 | 0.9121 | | 0.8391 | 0.8391 | 0.0000 | 1,729.2050 | 1,729.2050 | 0.5383 | | 1,742.6631 |
| **Total** | **1.7164** | **18.6175** | **10.0778** | **0.0172** | **2.7099** | **0.9121** | **3.6220** | **1.4896** | **0.8391** | **2.3287** | **0.0000** | **1,729.2050** | **1,729.2050** | **0.5383** | | **1,742.6631** |

### 3.3 Maintenance Activities - 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 | 0.0175 | 0.5970 | 0.1310 | 1.4700e-003 | 0.3517 | 2.3800e-003 | 0.3540 | 0.0872 | 2.2800e-003 | 0.0895 | | 159.7586 | 159.7586 | 0.0149 | | 160.1301 |
| Vendor | 0.0108 | 0.2640 | 0.0772 | 5.4000e-004 | 0.0135 | 2.1000e-003 | 0.0156 | 3.9000e-003 | 2.0000e-003 | 5.9000e-003 | | 58.1396 | 58.1396 | 5.0300e-003 | | 58.2654 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2590** | **1.0262** | **1.7669** | **6.0700e-003** | **0.7595** | **7.3200e-003** | **0.7668** | **0.1957** | **6.9000e-003** | **0.2026** | | **622.2153** | **622.2153** | **0.0339** | | **623.0628** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | 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

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 |
| **Total** | | **0.0000** | **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

**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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| Unmitigated | 0.0124 | 0.0000 | 6.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-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 | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

**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 | 0.0124 | | | | | 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 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | | 1.4000e-004 |
| **Total** | **0.0124** | **0.0000** | **6.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **1.3000e-004** | **1.3000e-004** | **0.0000** | | **1.4000e-004** |

## 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**

| 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

# Outlet/Inlet Structure – 4202 J Street Mitigated

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.26 | 1000sqft | 0.03 | 1,265.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, Annual

Project Characteristics -

Land Use - project specifics

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Outlet/Inlet Structure - 4202 J Street

Vehicle Trips - Construction Emissions Only

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - PDF and mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 5.00 |
| tblConstructionPhase | PhaseEndDate | 1/2/2018 | 1/5/2018 |

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, Annual

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblLandUse | LandUseSquareFeet | 1,260.00 | 1,265.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 65.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.73 | 0.37 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblWater | IndoorWaterUseRate | 291,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 1.8500e-003 | 0.0156 | 0.0152 | 3.0000e-005 | 1.1000e-003 | 6.4000e-004 | 1.7300e-003 | 2.9000e-004 | 5.9000e-004 | 8.9000e-004 | 0.0000 | 3.0072 | 3.0072 | 5.2000e-004 | 0.0000 | 3.0201 |
| **Maximum** | **1.8500e-003** | **0.0156** | **0.0152** | **3.0000e-005** | **1.1000e-003** | **6.4000e-004** | **1.7300e-003** | **2.9000e-004** | **5.9000e-004** | **8.9000e-004** | **0.0000** | **3.0072** | **3.0072** | **5.2000e-004** | **0.0000** | **3.0201** |

**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 | 8.3000e-004 | 9.9600e-003 | 0.0158 | 3.0000e-005 | 1.1000e-003 | 1.2000e-004 | 1.2100e-003 | 2.9000e-004 | 1.2000e-004 | 4.1000e-004 | 0.0000 | 3.0072 | 3.0072 | 5.2000e-004 | 0.0000 | 3.0201 |
| **Maximum** | **8.3000e-004** | **9.9600e-003** | **0.0158** | **3.0000e-005** | **1.1000e-003** | **1.2000e-004** | **1.2100e-003** | **2.9000e-004** | **1.2000e-004** | **4.1000e-004** | **0.0000** | **3.0072** | **3.0072** | **5.2000e-004** | **0.0000** | **3.0201** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **55.14** | **36.07** | **-3.75** | **0.00** | **0.00** | **81.25** | **30.06** | **0.00** | **79.66** | **53.93** | **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** | **1-1-2018** | **3-31-2018** | 0.0125 | 0.0077 |
| | | **Highest** | 0.0125 | 0.0077 |

## 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 | 6.4100e-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 | 0.0000 | 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** | **6.4100e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

## 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 | 6.4100e-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 | 0.0000 | 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** | **6.4100e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/5/2018 | 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**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 65 | 0.37 |
| Grading | Concrete/Industrial Saws | 2 | 5.00 | 9 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Skid Steer Loaders | 1 | 5.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 7 | 48.00 | 6.00 | 4.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.2400e-003 | 0.0125 | 0.0106 | 2.0000e-005 | | 6.1000e-004 | 6.1000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 1.5219 | 1.5219 | 4.4000e-004 | 0.0000 | 1.5329 |
| **Total** | **1.2400e-003** | **0.0125** | **0.0106** | **2.0000e-005** | **0.0000** | **6.1000e-004** | **6.1000e-004** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **1.5219** | **1.5219** | **4.4000e-004** | **0.0000** | **1.5329** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | 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-005 | 6.5000e-004 | 1.4000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.1576 | 0.1576 | 1.0000e-005 | 0.0000 | 0.1580 |
| Vendor | 8.0000e-005 | 2.0000e-003 | 5.5000e-004 | 0.0000 | 1.0000e-004 | 2.0000e-005 | 1.2000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.4015 | 0.4015 | 3.0000e-005 | 0.0000 | 0.4023 |
| Worker | 5.1000e-004 | 4.1000e-004 | 3.9000e-003 | 1.0000e-005 | 9.6000e-004 | 1.0000e-005 | 9.7000e-004 | 2.6000e-004 | 1.0000e-005 | 2.6000e-004 | 0.0000 | 0.9261 | 0.9261 | 3.0000e-005 | 0.0000 | 0.9269 |
| **Total** | **6.1000e-004** | **3.0600e-003** | **4.5900e-003** | **1.0000e-005** | **1.0900e-003** | **3.0000e-005** | **1.1300e-003** | **3.0000e-004** | **2.0000e-005** | **3.1000e-004** | **0.0000** | **1.4852** | **1.4852** | **7.0000e-005** | **0.0000** | **1.4872** |

## 3.2 Grading - 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 | 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 | 2.2000e-004 | 6.9100e-003 | 0.0112 | 2.0000e-005 | | 9.0000e-005 | 9.0000e-005 | | 9.0000e-005 | 9.0000e-005 | 0.0000 | 1.5219 | 1.5219 | 4.4000e-004 | 0.0000 | 1.5329 |
| **Total** | **2.2000e-004** | **6.9100e-003** | **0.0112** | **2.0000e-005** | **0.0000** | **9.0000e-005** | **9.0000e-005** | **0.0000** | **9.0000e-005** | **9.0000e-005** | **0.0000** | **1.5219** | **1.5219** | **4.4000e-004** | **0.0000** | **1.5329** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | 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-005 | 6.5000e-004 | 1.4000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.1576 | 0.1576 | 1.0000e-005 | 0.0000 | 0.1580 |
| Vendor | 8.0000e-005 | 2.0000e-003 | 5.5000e-004 | 0.0000 | 1.0000e-004 | 2.0000e-005 | 1.2000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.4015 | 0.4015 | 3.0000e-005 | 0.0000 | 0.4023 |
| Worker | 5.1000e-004 | 4.1000e-004 | 3.9000e-003 | 1.0000e-005 | 9.6000e-004 | 1.0000e-005 | 9.7000e-004 | 2.6000e-004 | 1.0000e-005 | 2.6000e-004 | 0.0000 | 0.9261 | 0.9261 | 3.0000e-005 | 0.0000 | 0.9269 |
| **Total** | **6.1000e-004** | **3.0600e-003** | **4.5900e-003** | **1.0000e-005** | **1.0900e-003** | **3.0000e-005** | **1.1300e-003** | **3.0000e-004** | **2.0000e-005** | **3.1000e-004** | **0.0000** | **1.4852** | **1.4852** | **7.0000e-005** | **0.0000** | **1.4872** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 6.4100e-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 |
| Unmitigated | 6.4100e-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 | 1.4700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.9400e-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 |
| **Total** | **6.4100e-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

**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 | 1.4700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.9400e-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 |
| **Total** | **6.4100e-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** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Outlet/Inlet Structure – 4202 J Street

**San Diego County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.26 | 1000sqft | 0.03 | 1,265.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Outlet/Inlet Structure – 4202 J Street - San Diego County, Annual

Project Characteristics -

Land Use - project specifics

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Outlet/Inlet Structure - 4202 J Street

Vehicle Trips - Construction Emissions Only

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - PDF and mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 |
| tblConstructionPhase | NumDays | 2.00 | 5.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblLandUse | LandUseSquareFeet | 1,260.00 | 1,265.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 81.00 | 65.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.73 | 0.37 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 291,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 1.8600e-003 | 0.0156 | 0.0152 | 3.0000e-005 | 1.1000e-003 | 6.4000e-004 | 1.7400e-003 | 2.9000e-004 | 5.9000e-004 | 8.9000e-004 | 0.0000 | 3.0102 | 3.0102 | 5.2000e-004 | 0.0000 | 3.0232 |
| **Maximum** | **1.8600e-003** | **0.0156** | **0.0152** | **3.0000e-005** | **1.1000e-003** | **6.4000e-004** | **1.7400e-003** | **2.9000e-004** | **5.9000e-004** | **8.9000e-004** | **0.0000** | **3.0102** | **3.0102** | **5.2000e-004** | **0.0000** | **3.0232** |

### 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 | 1.8600e-003 | 0.0156 | 0.0152 | 3.0000e-005 | 1.1000e-003 | 6.4000e-004 | 1.7400e-003 | 2.9000e-004 | 5.9000e-004 | 8.9000e-004 | 0.0000 | 3.0102 | 3.0102 | 5.2000e-004 | 0.0000 | 3.0232 |
| **Maximum** | **1.8600e-003** | **0.0156** | **0.0152** | **3.0000e-005** | **1.1000e-003** | **6.4000e-004** | **1.7400e-003** | **2.9000e-004** | **5.9000e-004** | **8.9000e-004** | **0.0000** | **3.0102** | **3.0102** | **5.2000e-004** | **0.0000** | **3.0232** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 1-1-2018 | 3-31-2018 | 0.0125 | 0.0125 |
| | | Highest | 0.0125 | 0.0125 |

## 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 | 6.4100e-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 | 0.0000 | 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** | **6.4100e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

## 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 | 6.4100e-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 | 0.0000 | 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** | **6.4100e-003** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0000** | **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** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/5/2018 | 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**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 65 | 0.37 |
| Grading | Concrete/Industrial Saws | 2 | 5.00 | 9 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Skid Steer Loaders | 1 | 5.00 | 65 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 7 | 48.00 | 6.00 | 4.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 1.2500e-003 | 0.0126 | 0.0107 | 2.0000e-005 | | 6.1000e-004 | 6.1000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 1.5250 | 1.5250 | 4.4000e-004 | 0.0000 | 1.5360 |
| **Total** | **1.2500e-003** | **0.0126** | **0.0107** | **2.0000e-005** | **0.0000** | **6.1000e-004** | **6.1000e-004** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **1.5250** | **1.5250** | **4.4000e-004** | **0.0000** | **1.5360** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | 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-005 | 6.5000e-004 | 1.4000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.1576 | 0.1576 | 1.0000e-005 | 0.0000 | 0.1580 |
| Vendor | 8.0000e-005 | 2.0000e-003 | 5.5000e-004 | 0.0000 | 1.0000e-004 | 2.0000e-005 | 1.2000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.4015 | 0.4015 | 3.0000e-005 | 0.0000 | 0.4023 |
| Worker | 5.1000e-004 | 4.1000e-004 | 3.9000e-003 | 1.0000e-005 | 9.6000e-004 | 1.0000e-005 | 9.7000e-004 | 2.6000e-004 | 1.0000e-005 | 2.6000e-004 | 0.0000 | 0.9261 | 0.9261 | 3.0000e-005 | 0.0000 | 0.9269 |
| **Total** | **6.1000e-004** | **3.0600e-003** | **4.5900e-003** | **1.0000e-005** | **1.0900e-003** | **3.0000e-005** | **1.1300e-003** | **3.0000e-004** | **2.0000e-005** | **3.1000e-004** | **0.0000** | **1.4852** | **1.4852** | **7.0000e-005** | **0.0000** | **1.4872** |

## 3.2 Grading - 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 | 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 | 1.2500e-003 | 0.0126 | 0.0107 | 2.0000e-005 | | 6.1000e-004 | 6.1000e-004 | | 5.7000e-004 | 5.7000e-004 | 0.0000 | 1.5250 | 1.5250 | 4.4000e-004 | 0.0000 | 1.5360 |
| **Total** | **1.2500e-003** | **0.0126** | **0.0107** | **2.0000e-005** | **0.0000** | **6.1000e-004** | **6.1000e-004** | **0.0000** | **5.7000e-004** | **5.7000e-004** | **0.0000** | **1.5250** | **1.5250** | **4.4000e-004** | **0.0000** | **1.5360** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | 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-005 | 6.5000e-004 | 1.4000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.1576 | 0.1576 | 1.0000e-005 | 0.0000 | 0.1580 |
| Vendor | 8.0000e-005 | 2.0000e-003 | 5.5000e-004 | 0.0000 | 1.0000e-004 | 2.0000e-005 | 1.2000e-004 | 3.0000e-005 | 1.0000e-005 | 4.0000e-005 | 0.0000 | 0.4015 | 0.4015 | 3.0000e-005 | 0.0000 | 0.4023 |
| Worker | 5.1000e-004 | 4.1000e-004 | 3.9000e-003 | 1.0000e-005 | 9.6000e-004 | 1.0000e-005 | 9.7000e-004 | 2.6000e-004 | 1.0000e-005 | 2.6000e-004 | 0.0000 | 0.9261 | 0.9261 | 3.0000e-005 | 0.0000 | 0.9269 |
| **Total** | **6.1000e-004** | **3.0600e-003** | **4.5900e-003** | **1.0000e-005** | **1.0900e-003** | **3.0000e-005** | **1.1300e-003** | **3.0000e-004** | **2.0000e-005** | **3.1000e-004** | **0.0000** | **1.4852** | **1.4852** | **7.0000e-005** | **0.0000** | **1.4872** |

## 4.0 Operational Detail - Mobile

## 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 6.4100e-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 |
| Unmitigated | 6.4100e-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 | 1.4700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.9400e-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 |
| **Total** | **6.4100e-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

**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 | 1.4700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 4.9400e-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 |
| **Total** | **6.4100e-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** |

## 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 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Industrial Park | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 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 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Industrial Park | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 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

# Outlet/Inlet Structure – 4202 J Street Mitigated

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.26 | 1000sqft | 0.03 | 1,265.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, Summer

Project Characteristics -

Land Use - project specifics

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Outlet/Inlet Structure - 4202 J Street

Vehicle Trips - Construction Emissions Only

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - PDF and mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 5.00 |
| tblConstructionPhase | PhaseEndDate | 1/2/2018 | 1/5/2018 |

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, Summer

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblLandUse | LandUseSquareFeet | 1,260.00 | 1,265.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 65.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.73 | 0.37 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblWater | IndoorWaterUseRate | 291,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.7405 | 6.2001 | 6.1595 | 0.0135 | 0.4489 | 0.2548 | 0.7037 | 0.1201 | 0.2365 | 0.3566 | 0.0000 | 1,350.6147 | 1,350.6147 | 0.2285 | 0.0000 | 1,356.3260 |
| **Maximum** | **0.7405** | **6.2001** | **6.1595** | **0.0135** | **0.4489** | **0.2548** | **0.7037** | **0.1201** | **0.2365** | **0.3566** | **0.0000** | **1,350.6147** | **1,350.6147** | **0.2285** | **0.0000** | **1,356.3260** |

**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 | 0.3312 | 3.9547 | 6.3901 | 0.0135 | 0.4489 | 0.0473 | 0.4962 | 0.1201 | 0.0468 | 0.1669 | 0.0000 | 1,350.6147 | 1,350.6147 | 0.2285 | 0.0000 | 1,356.3260 |
| **Maximum** | **0.3312** | **3.9547** | **6.3901** | **0.0135** | **0.4489** | **0.0473** | **0.4962** | **0.1201** | **0.0468** | **0.1669** | **0.0000** | **1,350.6147** | **1,350.6147** | **0.2285** | **0.0000** | **1,356.3260** |

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **55.27** | **36.22** | **-3.74** | **0.00** | **0.00** | **81.44** | **29.49** | **0.00** | **80.23** | **53.20** | **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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

### 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/5/2018 | 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

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 65 | 0.37 |
| Grading | Concrete/Industrial Saws | 2 | 5.00 | 9 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Skid Steer Loaders | 1 | 5.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 7 | 48.00 | 6.00 | 4.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 0.4979 | 5.0080 | 4.2545 | 6.8500e-003 | | 0.2448 | 0.2448 | | 0.2270 | 0.2270 | | 671.0526 | 671.0526 | 0.1934 | | 675.8868 |
| **Total** | **0.4979** | **5.0080** | **4.2545** | **6.8500e-003** | **0.0000** | **0.2448** | **0.2448** | **0.0000** | **0.2270** | **0.2270** | | **671.0526** | **671.0526** | **0.1934** | | **675.8868** |

## 3.2 Grading - 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 | 7.3200e-003 | 0.2545 | 0.0525 | 6.4000e-004 | 0.0140 | 1.0000e-003 | 0.0150 | 3.8300e-003 | 9.6000e-004 | 4.7900e-003 | | 69.9804 | 69.9804 | 6.1700e-003 | | 70.1346 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2426** | **1.1921** | **1.9050** | **6.6400e-003** | **0.4489** | **0.0100** | **0.4589** | **0.1201** | **9.4900e-003** | **0.1296** | | **679.5621** | **679.5621** | **0.0351** | | **680.4392** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0886 | 2.7626 | 4.4851 | 6.8500e-003 | | 0.0373 | 0.0373 | | 0.0373 | 0.0373 | 0.0000 | 671.0526 | 671.0526 | 0.1934 | | 675.8868 |
| **Total** | **0.0886** | **2.7626** | **4.4851** | **6.8500e-003** | **0.0000** | **0.0373** | **0.0373** | **0.0000** | **0.0373** | **0.0373** | **0.0000** | **671.0526** | **671.0526** | **0.1934** | | **675.8868** |

### 3.2 Grading - 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 | 7.3200e-003 | 0.2545 | 0.0525 | 6.4000e-004 | 0.0140 | 1.0000e-003 | 0.0150 | 3.8300e-003 | 9.6000e-004 | 4.7900e-003 | | 69.9804 | 69.9804 | 6.1700e-003 | | 70.1346 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2426** | **1.1921** | **1.9050** | **6.6400e-003** | **0.4489** | **0.0100** | **0.4589** | **0.1201** | **9.4900e-003** | **0.1296** | | **679.5621** | **679.5621** | **0.0351** | | **680.4392** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

# 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| Unmitigated | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

**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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

## 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**

| 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

# Outlet/Inlet Structure – 4202 J Street

**San Diego County, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.26 | 1000sqft | 0.03 | 1,265.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Outlet/Inlet Structure – 4202 J Street - San Diego County, Summer

Project Characteristics -

Land Use - project specifics

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Outlet/Inlet Structure - 4202 J Street

Vehicle Trips - Construction Emissions Only

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - PDF and mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 |
| tblConstructionPhase | NumDays | 2.00 | 5.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblLandUse | LandUseSquareFeet | 1,260.00 | 1,265.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 81.00 | 65.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.73 | 0.37 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 291,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.7421 | 6.2169 | 6.1694 | 0.0135 | 0.4489 | 0.2557 | 0.7046 | 0.1201 | 0.2373 | 0.3574 | 0.0000 | 1,351.9688 | 1,351.9688 | 0.2289 | 0.0000 | 1,357.6907 |
| **Maximum** | **0.7421** | **6.2169** | **6.1694** | **0.0135** | **0.4489** | **0.2557** | **0.7046** | **0.1201** | **0.2373** | **0.3574** | **0.0000** | **1,351.9688** | **1,351.9688** | **0.2289** | **0.0000** | **1,357.6907** |

### 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 | 0.7421 | 6.2169 | 6.1694 | 0.0135 | 0.4489 | 0.2557 | 0.7046 | 0.1201 | 0.2373 | 0.3574 | 0.0000 | 1,351.9688 | 1,351.9688 | 0.2289 | 0.0000 | 1,357.6907 |
| **Maximum** | **0.7421** | **6.2169** | **6.1694** | **0.0135** | **0.4489** | **0.2557** | **0.7046** | **0.1201** | **0.2373** | **0.3574** | **0.0000** | **1,351.9688** | **1,351.9688** | **0.2289** | **0.0000** | **1,357.6907** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

## 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

### 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/5/2018 | 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

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 65 | 0.37 |
| Grading | Concrete/Industrial Saws | 2 | 5.00 | 9 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Skid Steer Loaders | 1 | 5.00 | 65 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 7 | 48.00 | 6.00 | 4.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 0.4995 | 5.0247 | 4.2644 | 6.8600e-003 | | 0.2456 | 0.2456 | | 0.2278 | 0.2278 | | 672.4067 | 672.4067 | 0.1938 | | 677.2515 |
| **Total** | **0.4995** | **5.0247** | **4.2644** | **6.8600e-003** | **0.0000** | **0.2456** | **0.2456** | **0.0000** | **0.2278** | **0.2278** | | **672.4067** | **672.4067** | **0.1938** | | **677.2515** |

## 3.2 Grading - 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 | 7.3200e-003 | 0.2545 | 0.0525 | 6.4000e-004 | 0.0140 | 1.0000e-003 | 0.0150 | 3.8300e-003 | 9.6000e-004 | 4.7900e-003 | | 69.9804 | 69.9804 | 6.1700e-003 | | 70.1346 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2426** | **1.1921** | **1.9050** | **6.6400e-003** | **0.4489** | **0.0100** | **0.4589** | **0.1201** | **9.4900e-003** | **0.1296** | | **679.5621** | **679.5621** | **0.0351** | | **680.4392** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.4995 | 5.0247 | 4.2644 | 6.8600e-003 | | 0.2456 | 0.2456 | | 0.2278 | 0.2278 | 0.0000 | 672.4067 | 672.4067 | 0.1938 | | 677.2515 |
| **Total** | **0.4995** | **5.0247** | **4.2644** | **6.8600e-003** | **0.0000** | **0.2456** | **0.2456** | **0.0000** | **0.2278** | **0.2278** | **0.0000** | **672.4067** | **672.4067** | **0.1938** | | **677.2515** |

### 3.2 Grading - 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 | 7.3200e-003 | 0.2545 | 0.0525 | 6.4000e-004 | 0.0140 | 1.0000e-003 | 0.0150 | 3.8300e-003 | 9.6000e-004 | 4.7900e-003 | | 69.9804 | 69.9804 | 6.1700e-003 | | 70.1346 |
| Vendor | 0.0309 | 0.7905 | 0.2093 | 1.6700e-003 | 0.0406 | 6.1800e-003 | 0.0468 | 0.0117 | 5.9100e-003 | 0.0176 | | 178.9139 | 178.9139 | 0.0142 | | 179.2684 |
| Worker | 0.2043 | 0.1471 | 1.6432 | 4.3300e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 430.6678 | 430.6678 | 0.0147 | | 431.0362 |
| **Total** | **0.2426** | **1.1921** | **1.9050** | **6.6400e-003** | **0.4489** | **0.0100** | **0.4589** | **0.1201** | **9.4900e-003** | **0.1296** | | **679.5621** | **679.5621** | **0.0351** | | **680.4392** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| Unmitigated | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

**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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

## 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**

| 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

# Outlet/Inlet Structure – 4202 J Street Mitigated

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.26 | 1000sqft | 0.03 | 1,265.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, Winter

Project Characteristics -

Land Use - project specifics

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Outlet/Inlet Structure - 4202 J Street

Vehicle Trips - Construction Emissions Only

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - PDF and mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Interim |
| tblConstructionPhase | NumDays | 2.00 | 5.00 |
| tblConstructionPhase | PhaseEndDate | 1/2/2018 | 1/5/2018 |

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, Winter

| | | | |
|---|---|---|---|
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblLandUse | LandUseSquareFeet | 1,260.00 | 1,265.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 65.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.73 | 0.37 |
| tblOffRoadEquipment | LoadFactor | 0.46 | 0.46 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Sweepers/Scrubbers |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |

| | | | |
|---|---|---|---|
| tblWater | IndoorWaterUseRate | 291,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.7685 | 6.2223 | 6.1012 | 0.0132 | 0.4489 | 0.2549 | 0.7038 | 0.1201 | 0.2366 | 0.3567 | 0.0000 | 1,318.6075 | 1,318.6075 | 0.2289 | 0.0000 | 1,324.3294 |
| **Maximum** | **0.7685** | **6.2223** | **6.1012** | **0.0132** | **0.4489** | **0.2549** | **0.7038** | **0.1201** | **0.2366** | **0.3567** | **0.0000** | **1,318.6075** | **1,318.6075** | **0.2289** | **0.0000** | **1,324.3294** |

**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 | 0.3592 | 3.9769 | 6.3318 | 0.0132 | 0.4489 | 0.0474 | 0.4963 | 0.1201 | 0.0469 | 0.1670 | 0.0000 | 1,318.6075 | 1,318.6075 | 0.2289 | 0.0000 | 1,324.3294 |
| **Maximum** | **0.3592** | **3.9769** | **6.3318** | **0.0132** | **0.4489** | **0.0474** | **0.4963** | **0.1201** | **0.0469** | **0.1670** | **0.0000** | **1,318.6075** | **1,318.6075** | **0.2289** | **0.0000** | **1,324.3294** |

Outlet/Inlet Structure – 4202 J Street Mitigated - San Diego County, 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **53.26** | **36.09** | **-3.78** | **0.00** | **0.00** | **81.40** | **29.48** | **0.00** | **80.19** | **53.18** | **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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

### 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/5/2018 | 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

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 65 | 0.37 |
| Grading | Concrete/Industrial Saws | 2 | 5.00 | 9 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Skid Steer Loaders | 1 | 5.00 | 65 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 7 | 48.00 | 6.00 | 4.00 | 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

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 0.4979 | 5.0080 | 4.2545 | 6.8500e-003 | | 0.2448 | 0.2448 | | 0.2270 | 0.2270 | | 671.0526 | 671.0526 | 0.1934 | | 675.8868 |
| **Total** | **0.4979** | **5.0080** | **4.2545** | **6.8500e-003** | **0.0000** | **0.2448** | **0.2448** | **0.0000** | **0.2270** | **0.2270** | | **671.0526** | **671.0526** | **0.1934** | | **675.8868** |

## 3.2 Grading - 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 | 7.5300e-003 | 0.2572 | 0.0564 | 6.3000e-004 | 0.0140 | 1.0200e-003 | 0.0150 | 3.8300e-003 | 9.8000e-004 | 4.8100e-003 | | 68.8191 | 68.8191 | 6.4000e-003 | | 68.9791 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2706** | **1.2143** | **1.8467** | **6.3200e-003** | **0.4489** | **0.0102** | **0.4591** | **0.1201** | **9.6100e-003** | **0.1297** | | **647.5550** | **647.5550** | **0.0355** | | **648.4426** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0886 | 2.7626 | 4.4851 | 6.8500e-003 | | 0.0373 | 0.0373 | | 0.0373 | 0.0373 | 0.0000 | 671.0526 | 671.0526 | 0.1934 | | 675.8868 |
| **Total** | **0.0886** | **2.7626** | **4.4851** | **6.8500e-003** | **0.0000** | **0.0373** | **0.0373** | **0.0000** | **0.0373** | **0.0373** | **0.0000** | **671.0526** | **671.0526** | **0.1934** | | **675.8868** |

### 3.2 Grading - 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 | 7.5300e-003 | 0.2572 | 0.0564 | 6.3000e-004 | 0.0140 | 1.0200e-003 | 0.0150 | 3.8300e-003 | 9.8000e-004 | 4.8100e-003 | | 68.8191 | 68.8191 | 6.4000e-003 | | 68.9791 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2706** | **1.2143** | **1.8467** | **6.3200e-003** | **0.4489** | **0.0102** | **0.4591** | **0.1201** | **9.6100e-003** | **0.1297** | | **647.5550** | **647.5550** | **0.0355** | | **648.4426** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| Unmitigated | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

**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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

## 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**

| 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

# Outlet/Inlet Structure – 4202 J Street

**San Diego County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Industrial Park | 1.26 | 1000sqft | 0.03 | 1,265.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.6 | **Precipitation Freq (Days)** | 40 |
| **Climate Zone** | 13 | | | **Operational Year** | 2019 |
| **Utility Company** | San Diego Gas & Electric | | | | |
| **CO2 Intensity (lb/MWhr)** | 720.49 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Outlet/Inlet Structure – 4202 J Street - San Diego County, Winter

Project Characteristics -

Land Use - project specifics

Construction Phase - project specifics

Off-road Equipment - Facility Maintenance Plan Via Encantadoras Segment 3

Trips and VMT - Facility Maintenance Plan Outlet/Inlet Structure - 4202 J Street

Vehicle Trips - Construction Emissions Only

Energy Use - Construction Emissions Only

Water And Wastewater - Construction Emissions Only

Solid Waste - Construction Emissions Only

Construction Off-road Equipment Mitigation - PDF and mitigation

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| 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 |
| tblConstructionPhase | NumDays | 2.00 | 5.00 |
| tblEnergyUse | LightingElect | 3.81 | 0.00 |
| tblEnergyUse | NT24E | 4.97 | 0.00 |
| tblEnergyUse | NT24NG | 4.20 | 0.00 |
| tblEnergyUse | T24E | 4.66 | 0.00 |
| tblEnergyUse | T24NG | 15.99 | 0.00 |
| tblLandUse | LandUseSquareFeet | 1,260.00 | 1,265.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | HorsePower | 81.00 | 65.00 |
| tblOffRoadEquipment | HorsePower | 81.00 | 9.00 |
| tblOffRoadEquipment | HorsePower | 64.00 | 142.00 |
| tblOffRoadEquipment | LoadFactor | 0.73 | 0.37 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 5.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblSolidWaste | SolidWasteGenerationRate | 1.56 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 6.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 48.00 |
| tblVehicleTrips | ST_TR | 2.49 | 0.00 |
| tblVehicleTrips | SU_TR | 0.73 | 0.00 |
| tblVehicleTrips | WD_TR | 6.83 | 0.00 |
| tblWater | IndoorWaterUseRate | 291,375.00 | 0.00 |

## 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 | | | | | |
| 2018 | 0.7701 | 6.2390 | 6.1111 | 0.0132 | 0.4489 | 0.2558 | 0.7047 | 0.1201 | 0.2374 | 0.3575 | 0.0000 | 1,319.9616 | 1,319.9616 | 0.2293 | 0.0000 | 1,325.6940 |
| **Maximum** | **0.7701** | **6.2390** | **6.1111** | **0.0132** | **0.4489** | **0.2558** | **0.7047** | **0.1201** | **0.2374** | **0.3575** | **0.0000** | **1,319.9616** | **1,319.9616** | **0.2293** | **0.0000** | **1,325.6940** |

### 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 | 0.7701 | 6.2390 | 6.1111 | 0.0132 | 0.4489 | 0.2558 | 0.7047 | 0.1201 | 0.2374 | 0.3575 | 0.0000 | 1,319.9616 | 1,319.9616 | 0.2293 | 0.0000 | 1,325.6940 |
| **Maximum** | **0.7701** | **6.2390** | **6.1111** | **0.0132** | **0.4489** | **0.2558** | **0.7047** | **0.1201** | **0.2374** | **0.3575** | **0.0000** | **1,319.9616** | **1,319.9616** | **0.2293** | **0.0000** | **1,325.6940** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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** |

## 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

### 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | **0.0000** | **2.9000e-004** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | 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 | Grading | Grading | 1/1/2018 | 1/5/2018 | 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

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 65 | 0.37 |
| Grading | Concrete/Industrial Saws | 2 | 5.00 | 9 | 0.73 |
| Grading | Dumpers/Tenders | 2 | 5.00 | 16 | 0.38 |
| Grading | Excavators | 1 | 5.00 | 158 | 0.38 |
| Grading | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Skid Steer Loaders | 1 | 5.00 | 65 | 0.37 |
| Grading | Sweepers/Scrubbers | 1 | 2.00 | 142 | 0.46 |
| Grading | Tractors/Loaders/Backhoes | 0 | 0.00 | 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Grading | 7 | 48.00 | 6.00 | 4.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## 3.2 Grading - 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 | 0.4995 | 5.0247 | 4.2644 | 6.8600e-003 | | 0.2456 | 0.2456 | | 0.2278 | 0.2278 | | 672.4067 | 672.4067 | 0.1938 | | 677.2515 |
| **Total** | **0.4995** | **5.0247** | **4.2644** | **6.8600e-003** | **0.0000** | **0.2456** | **0.2456** | **0.0000** | **0.2278** | **0.2278** | | **672.4067** | **672.4067** | **0.1938** | | **677.2515** |

## 3.2 Grading - 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 | 7.5300e-003 | 0.2572 | 0.0564 | 6.3000e-004 | 0.0140 | 1.0200e-003 | 0.0150 | 3.8300e-003 | 9.8000e-004 | 4.8100e-003 | | 68.8191 | 68.8191 | 6.4000e-003 | | 68.9791 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2706** | **1.2143** | **1.8467** | **6.3200e-003** | **0.4489** | **0.0102** | **0.4591** | **0.1201** | **9.6100e-003** | **0.1297** | | **647.5550** | **647.5550** | **0.0355** | | **648.4426** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.4995 | 5.0247 | 4.2644 | 6.8600e-003 | | 0.2456 | 0.2456 | | 0.2278 | 0.2278 | 0.0000 | 672.4067 | 672.4067 | 0.1938 | | 677.2515 |
| **Total** | **0.4995** | **5.0247** | **4.2644** | **6.8600e-003** | **0.0000** | **0.2456** | **0.2456** | **0.0000** | **0.2278** | **0.2278** | **0.0000** | **672.4067** | **672.4067** | **0.1938** | | **677.2515** |

### 3.2 Grading - 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 | 7.5300e-003 | 0.2572 | 0.0564 | 6.3000e-004 | 0.0140 | 1.0200e-003 | 0.0150 | 3.8300e-003 | 9.8000e-004 | 4.8100e-003 | | 68.8191 | 68.8191 | 6.4000e-003 | | 68.9791 |
| Vendor | 0.0323 | 0.7919 | 0.2316 | 1.6300e-003 | 0.0406 | 6.2900e-003 | 0.0469 | 0.0117 | 6.0100e-003 | 0.0177 | | 174.4188 | 174.4188 | 0.0151 | | 174.7961 |
| Worker | 0.2308 | 0.1653 | 1.5587 | 4.0600e-003 | 0.3943 | 2.8400e-003 | 0.3972 | 0.1046 | 2.6200e-003 | 0.1072 | | 404.3171 | 404.3171 | 0.0140 | | 404.6674 |
| **Total** | **0.2706** | **1.2143** | **1.8467** | **6.3200e-003** | **0.4489** | **0.0102** | **0.4591** | **0.1201** | **9.6100e-003** | **0.1297** | | **647.5550** | **647.5550** | **0.0355** | | **648.4426** |

## 4.0 Operational Detail - Mobile

### 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

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Industrial Park | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

### 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | 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 |
| Industrial Park | 9.50 | 7.30 | 7.30 | 59.00 | 28.00 | 13.00 | 79 | 19 | 2 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Industrial Park | 0.581689 | 0.044135 | 0.186694 | 0.113515 | 0.018244 | 0.005600 | 0.015197 | 0.022573 | 0.001888 | 0.002088 | 0.006279 | 0.000742 | 0.001357 |

## 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 |

## 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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **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

**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 | | | | | |
| Industrial Park | 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 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| Unmitigated | 0.0351 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

**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 | 8.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0271 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 2.9000e-004 |
| **Total** | **0.0351** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **2.9000e-004** |

## 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**

| 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

# APPENDIX B

## *CAP Checklist*

# CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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# CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

## Application Information

### Contact Information

Project No./Name: Waterways Maintenance Plan (WMP)

Property Address: various locations

Applicant Name/Co.: City of San Diego, Transportation and Stormwater Division

Contact Phone: _____ Contact Email: _____

Was a consultant retained to complete this checklist? ☐ Yes ☐ No If Yes, complete the following

Consultant Name: Rose Kelly Contact Phone: (760) 479 4258

Company Name: Dudek Contact Email: rkelly@dudek.com

### Project Information

1. What is the size of the project (acres)? _____
2. Identify all applicable proposed land uses:
   - ☐ Residential (indicate # of single-family units): _____
   - ☐ Residential (indicate # of multi-family units): _____
   - ☐ Commercial (total square footage): _____
   - ☐ Industrial (total square footage): _____
   - ■ Other (describe): maintenance in municipal waterways
3. Is the project or a portion of the project located in a Transit Priority Area? ☐ Yes ☐ No
4. Provide a brief description of the project proposed:

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

# CAP CONSISTENCY CHECKLIST QUESTIONS

## Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

| Step 1: Land Use Consistency | | |
|---|---|---|
| Checklist Item<br>(Check the appropriate box and provide explanation and supporting documentation for your answer) | Yes | No |
| A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR,<br><br>B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR,<br><br>C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations? | ☑ | ☐ |

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

The project would not require a change in General Plan or Community Plan land use designation, nor would the project require a change in zoning designation.

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

# Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

| Step 2: CAP Strategies Consistency | | | |
|---|---|---|---|
| Checklist Item<br>(Check the appropriate box and provide explanation for your answer) | Yes | No | N/A |
| **Strategy 1: Energy & Water Efficient Buildings** | | | |
| 1. *Cool/Green Roofs*.<br>• Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR<br>• Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR<br>• Would the project include a combination of the above two options?<br>Check "N/A" only if the project does not include a roof component.<br>The project would not include roof structures. | ☐ | ☐ | ☑ |

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

| | | | |
|---|---|---|---|
| 2. *Plumbing fixtures and fittings*<br>With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:<br><br>Residential buildings:<br>• Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;<br>• Standard dishwashers: 4.25 gallons per cycle;<br>• Compact dishwashers: 3.5 gallons per cycle; and<br>• Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?<br><br>Nonresidential buildings:<br>• Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and<br>• Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)?<br><br>Check "N/A" only if the project does not include any plumbing fixtures or fittings.<br><br>The project would not include plumbing fixtures or fittings. | ☐ | ☐ | ☑ |

| Strategy 3: Bicycling, Walking, Transit & Land Use | | | |
|---|---|---|---|
| 3. *Electric Vehicle Charging*<br>• Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents?<br>• Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?<br>• Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?<br>Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces.<br>The project would not require additional parking. | ☐ | ☐ | ☑ |

| Strategy 3: Bicycling, Walking, Transit & Land Use<br>(Complete this section if project includes non-residential or mixed uses) | | | |
|---|---|---|---|
| 4. *Bicycle Parking Spaces*<br>Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6]<br>Check "N/A" only if the project is a residential project.<br>The project would not require additional parking. | ☐ | ☐ | ☑ |

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

| Number of Tenant Occupants (Employees) | Shower/Changing Facilities Required | Two-Tier (12" X 15" X 72") Personal Effects Lockers Required |
|---|---|---|
| 0-10 | 0 | 0 |
| 11-50 | 1 shower stall | 2 |
| 51-100 | 1 shower stall | 3 |
| 101-200 | 1 shower stall | 4 |
| Over 200 | 1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants | 1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants |

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

The project would not accommodate additional employees.

| | | |
|---|---|---|
| ☐ | ☐ | ☑ |

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

| Number of Required Parking Spaces | Number of Designated Parking Spaces |
|---|---|
| 0-9 | 0 |
| 10-25 | 2 |
| 26-50 | 4 |
| 51-75 | 6 |
| 76-100 | 9 |
| 101-150 | 11 |
| 151-200 | 18 |
| 201 and over | At least 10% of total |

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

The project would not require additional parking.

| | | |
|---|---|---|
| ☐ | ☐ | ☑ |

| | | | |
|---|---|---|---|
| 7. *Transportation Demand Management Program*<br><br>If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:<br><br>At least one of the following components:<br>• Parking cash out program<br>• Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools<br>• Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development<br><br>And at least three of the following components:<br>• Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees<br>• On-site carsharing vehicle(s) or bikesharing<br>• Flexible or alternative work hours<br>• Telework program<br>• Transit, carpool, and vanpool subsidies<br>• Pre-tax deduction for transit or vanpool fares and bicycle commute costs<br>• Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use?<br><br>Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees).<br><br>The project would not accommodate additional employees. | ☐ | ☐ | ☑ |

# Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

# CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
# ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

**Table 1 Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**

| Land Use Type | Roof Slope | Minimum 3-Year Aged Solar Reflectance | Thermal Emittance | Solar Reflective Index |
|---|---|---|---|---|
| Low-Rise Residential | ≤ 2:12 | 0.55 | 0.75 | 64 |
| | > 2:12 | 0.20 | 0.75 | 16 |
| High-Rise Residential Buildings, Hotels and Motels | ≤ 2:12 | 0.55 | 0.75 | 64 |
| | > 2:12 | 0.20 | 0.75 | 16 |
| Non-Residential | ≤ 2:12 | 0.55 | 0.75 | 64 |
| | > 2:12 | 0.20 | 0.75 | 16 |

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

| Table 2 | Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan |
|---|---|
| **Fixture Type** | **Maximum Flow Rate** |
| Showerheads | 1.8 gpm @ 80 psi |
| Lavatory Faucets | 0.35 gpm @60 psi |
| Kitchen Faucets | 1.6 gpm @ 60 psi |
| Wash Fountains | 1.6 [rim space(in.)/20 gpm @ 60 psi] |
| Metering Faucets | 0.18 gallons/cycle |
| Metering Faucets for Wash Fountains | 0.18 [rim space(in.)/20 gpm @ 60 psi] |
| Gravity Tank-type Water Closets | 1.12 gallons/flush |
| Flushometer Tank Water Closets | 1.12 gallons/flush |
| Flushometer Valve Water Closets | 1.12 gallons/flush |
| Electromechanical Hydraulic Water Closets | 1.12 gallons/flush |
| Urinals | 0.5 gallons/flush |

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

| **Table 3** | **Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan** | |
|---|---|---|
| **Appliance/Fixture Type** | **Standard** | |
| Clothes Washers | Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations*. | |
| Conveyor-type Dishwashers | 0.70 maximum gallons per rack (2.6 L) (High-Temperature) | 0.62 maximum gallons per rack (4.4 L) (Chemical) |
| Door-type Dishwashers | 0.95 maximum gallons per rack (3.6 L) (High-Temperature) | 1.16 maximum gallons per rack (2.6 L) (Chemical) |
| Undercounter-type Dishwashers | 0.90 maximum gallons per rack (3.4 L) (High-Temperature) | 0.98 maximum gallons per rack (3.7 L) (Chemical) |
| Combination Ovens | Consume no more than 10 gallons per hour (38 L/h) in the full operational mode. | |
| Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006) | Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and<br>• Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate.<br>• Be equipped with an integral automatic shutoff.<br>• Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less. | |

**Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.**

**Acronyms:**
**L = liter**
**L/h = liters per hour**
**L/s = liters per second**
**psi = pounds per square inch (unit of pressure)**
**kPa = kilopascal (unit of pressure)**