Appendix B

Air Quality Technical Report

HELIX Environmental Planning

Kearny Mesa Community Plan Update

Air Quality Technical Report

December 2019

Prepared for:

City of San Diego
Planning Department
9485 Aero Drive
San Diego, CA 92123

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

This page intentionally left blank

Kearny Mesa Community Plan Update

Air Quality Technical Report

Prepared for:

City of San Diego
Planning Department
9485 Aero Drive
San Diego, CA 92123

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

December 2019

This page intentionally left blank

TABLE OF CONTENTS

Section **Page**

LIST OF APPENDICES

LIST OF FIGURES

TABLE OF CONTENTS (cont.)

LIST OF TABLES

ACRONYMS AND ABBREVIATIONS

$\mu g/m^3$	micrograms per cubic meter
AAM	annual arithmetic mean
ACM	Asbestos Containing Material
AAQS	Ambient Air Quality Standards
ADT	average daily trips
AQIA	Air Quality Impact Assessment
ATL	average trip length
BAAQMD	Bay Area Air Quality Management District
BMPs	best management practices
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
City	City of San Diego
CO	carbon monoxide
County	County of San Diego
CPU area	Kearny Mesa Community Planning Area
CPU	Kearny Mesa Community Plan Update
DPM	diesel particulate matter
EMFAC	Emission Factors Model
ºF	Fahrenheit (degrees)
g/L	grams per liter
H_2S	hydrogen sulfide
IEM	Iowa Environmental Mesonet
I-	Interstate
km	kilometer
LBP	lead-based paint

ACRONYMS AND ABBREVIATIONS (cont.)

MCAS	Marine Corps Air Station
mg/m^3	milligrams per cubic meter
mph	miles per hour
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO	nitrogen oxide
NO_X	oxides of nitrogen
NO_2	nitrogen dioxide
O_3	Ozone
Pb	lead
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
ppm	parts per million
RAQS	Regional Air Quality Strategy
ROG	reactive organic gas
RRP	Repair and Painting Rule
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	oxides of sulfur
SR	State Route
T-BACT	Toxics Best Available Control Technology
TACs	Toxic Air Contaminants
USEPA	U.S. Environmental Protection Agency
VMT	vehicle miles travelled
VOC	volatile organic compound
WRCC	Western Regional Climate Center

This page intentionally left blank

EXECUTIVE SUMMARY

Kearny Mesa is located in the central portion of the City of San Diego (City) in San Diego County. The Kearny Mesa Community Plan Update (CPU) is a comprehensive update to the Kearny Mesa Community Plan, which was adopted in 1992 and most recently amended in January 2018 (City of San Diego 2018). The purpose of the CPU is to continue to guide the growth and development of Kearny Mesa. The proposed CPU provides community-specific policies that further implement the General Plan with respect to the distribution and arrangement of land uses and the local street and transit network; urban design guidelines; recommendations to preserve and enhance natural open space and historic and cultural resources; and the prioritization and provision of public facilities within the Kearny Mesa community. This report presents an assessment of potential construction and operational air quality impacts associated with the CPU.

As discussed in Section 5.1, the proposed CPU would change land use designations within the adopted Community Plan, which would change the buildout condition of the Kearny Mesa Community Planning Area (CPU area). Therefore, the land uses proposed under the CPU would not be consistent with the land uses in the adopted Community Plan upon which the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP) are based. Furthermore, the CPU would result in greater population, density, and vehicle miles traveled (VMT) when compared to the adopted Community Plan, and future emissions associated with buildout of the proposed CPU would be greater than future emissions associated with buildout of the adopted Community Plan land uses. The proposed CPU is therefore inconsistent with the RAQS and could potentially impede the goals contained within the RAQS and the SIP. Mitigation Measure AQ-1 requires the provision of a revised land use map and an updated housing and employment forecast for the CPU area to assist the San Diego Association of Governments (SANDAG) in revising the population forecasts; however, until the anticipated growth is included in the emission estimates of the RAQS and the SIP, the direct and cumulative impacts related to inconsistencies with the applicable air quality plans would remain significant and unavoidable.

Implementation of the proposed CPU would result in emissions of air pollutants during both the construction and operational phase of future development associated with the CPU. Implementation of Mitigation Measures AQ-2, requiring the analysis of potential construction impacts from proposed development projects, and AQ-3, requiring the implementation of best available control measures for construction activities that exceed the significance thresholds, would reduce construction emissions associated with new development within the CPU area. Operational emissions would be associated with vehicle trips generated by the CPU development, along with area sources such as energy use and landscaping. Based on the evaluation of air emissions, operational emissions associated with build-out of the proposed CPU would be greater for all pollutants when compared to the adopted Community Plan and would result in a significant air quality impact. A wide range of current regulatory codes would be incorporated into future development including energy-efficiency features that would, at a minimum, meet the 2016 California Title 24 Energy Efficiency Standards. Implementation of Mitigation Measure AQ-4, requiring the analysis and mitigation of individual future development projects, would reduce operational emissions. While implementation of Mitigation Measures AQ-2 through AQ-4 would reduce construction and operations emissions, the ability of future development to successfully implement the actions required to fully mitigate potential significant air quality impacts at the project level cannot be guaranteed at this time. Thus, air pollutant impacts from construction and operation under the proposed CPU are considered significant and unavoidable at the program-level.

If air emissions from a specific facility include toxic substances or would exceed identified limits, the facility would be required by the San Diego Air Pollution Control District (SDAPCD) to provide information regarding emissions inventories and health risk assessments. If adverse health impacts exceeding public notification levels are identified, the facility would be required pursuant to State regulations to provide public notice, and if the facility poses a potentially significant public health risk, the facility would be required to submit a risk reduction audit and plan to demonstrate how the facility would reduce health risks. With implementation of this regulatory framework, impacts associated with the exposure of sensitive receptors to substantial pollutant concentrations emitted by stationary sources in the CPU area would be less than significant.

Future traffic generated by the CPU would not result in the degradation of roadway intersections such that emissions of carbon monoxide (CO) would exceed state or federal standards that would result in a CO hotspot. Thus, CO hotspot impacts from construction and operation under the proposed CPU would be less than significant.

Individual development projects could be located within the siting distances recommended by the California Air Resources Board (CARB), thereby potentially exposing sensitive receptors to elevated levels of toxic air contaminants (TACs). Implementation of Mitigation Measure AQ-5 would reduce TAC impacts, however the ability of future development to successfully implement the actions required to fully mitigate potential significant TAC impacts cannot be guaranteed at this time. Thus, TAC impacts would be significant and unavoidable at the program-level.

An evaluation of potential odors from construction activities and land use operations indicated that the CPU would not expose substantial numbers of people to objectionable odors. Impacts related to odors would be less than significant.

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes potential air quality impacts associated with the implementation of the Kearny Mesa Community Plan Update (CPU), and, as appropriate, identifies measures which can be taken to mitigate adverse air quality impacts. The analysis follows the guidelines within the City of San Diego's (City) *California Environmental Quality Act* (CEQA) *Significance Determination Thresholds* (City 2016).

1.2 PROJECT LOCATION

Kearny Mesa is located in the central portion of the City within San Diego County (Figure 1, *Regional Location*). The CPU area is bounded by State Route (SR) 52 on the north and Interstate (I-) 805 and I-15 on the west and east, respectively, and encompasses approximately 4,423 acres (Figure 2, *Project Vicinity*). Marine Corps Air Station (MCAS) Miramar is situated to the north of the CPU area, the community of Tierrasanta to the east, the communities of Serra Mesa and Mission Valley to the south, and the communities of Clairemont Mesa and Linda Vista to the west.

1.3 PROJECT DESCRIPTION

The Kearny Mesa CPU is a comprehensive update to the Kearny Mesa Community Plan, which was adopted in 1992 and most recently amended in January 2018 (City of San Diego 2018). The purpose of the CPU is to continue to guide the growth and development of Kearny Mesa. The proposed CPU provides community-specific policies that further implement the General Plan with respect to the distribution and arrangement of land uses and the local street and transit network; urban design guidelines; recommendations to preserve and enhance natural open space and historic and cultural resources; and the prioritization and provision of public facilities within the Kearny Mesa community.

Within the boundaries of the CPU area are three locally approved planning documents: the Stonecrest Specific Plan, the New Century Center Master Plan, and the Montgomery-Gibbs Executive Airport Master Plan (refer to Figure 2). The Stonecrest Specific Plan was adopted by City Council in February 1988 with amendments approved in 1996 (City of San Diego 1996). The New Century Center Master Plan was approved by City Council in November 2002 (City of San Diego 2002). The Stonecrest Specific Plan is proposed to be rescinded as part of the proposed CPU. An update to the Montgomery-Gibbs Executive Airport Master Plan is being prepared by the City's Real Estate Assets Department - Airports Division.

1.4 AIR POLLUTANTS DESCRIPTORS AND TERMINOLOGY

1.4.1 Criteria Air Pollutants

Criteria air pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, air pollutants include the following compounds:

- Ozone (O_3)
- Reactive organic gases (ROGs) or volatile organic compounds (VOCs)
- Carbon monoxide (CO)

- Nitrogen dioxide (NO_2)
- Respirable particulate matter and fine particulate matter (PM_{10} and $PM_{2.5}$)
- Sulfur dioxide (SO_2)
- Lead (Pb)

The following specific descriptions of health effects for each of the air pollutants potentially associated with project construction and operation are based on information provided by the California Air Resources Board (CARB; 2009) and the U.S. Environmental Protection Agency (USEPA; 2018).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and nitrogen oxides (NO_X), both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from ozone exposure.

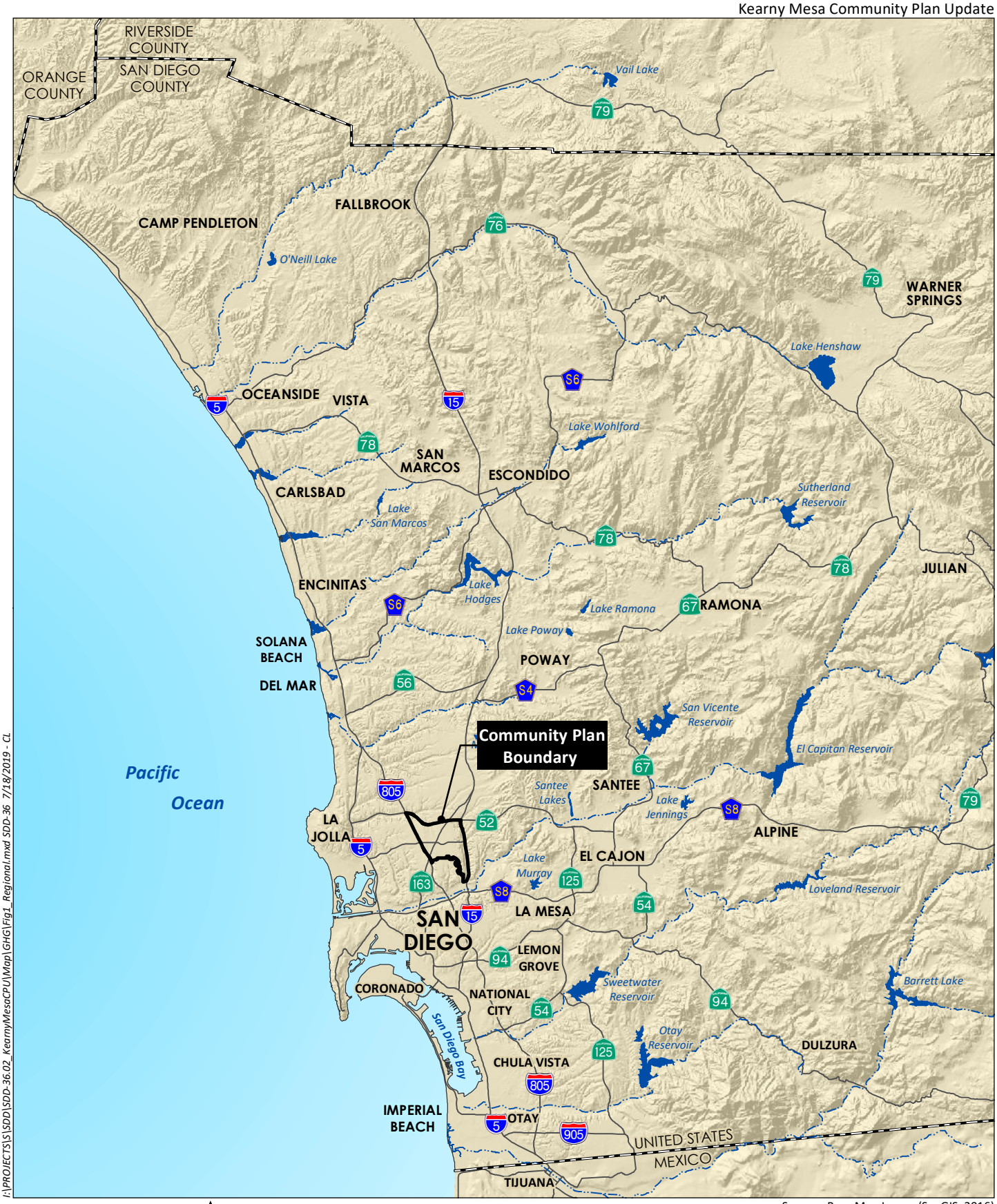
Reactive Organic Gases. ROGs (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a by-product of fuel combustion. CO is an odorless, colorless gas that affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with an existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges have been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified a carcinogen by CARB.

Sulfur dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.



I:\PROJECTS\S\SDD\SDD-36.02_KearnyMesaCPU\Map\GHG\Fig1_Regional.mxd SDD-36 7/18/2019 - CL

0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1

I:\PROJECTS\S\SDD\SDD-36.02_KearnyMesaCPU\Map\GHG\Fig2_ProjectVicinity.mxd SDD-36 7/18/2019 -CL

Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Project Vicinity

Figure 2

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities have become the primary sources of the largest amounts of lead emissions. Prolonged lead exposure has the potential to cause gastrointestinal, central nervous system, and kidney issues, as well as blood diseases. Lead is also classified as a probable human carcinogen. Projects that emit lead are permitted by the local air district and are required to follow regulations that limit lead exposure to sensitive receptors; therefore, lead would not be a criteria air pollutant of concern for the proposed CPU.

1.4.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

2.0 REGULATORY FRAMEWORK

2.1 FEDERAL REGULATIONS

2.1.1 Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards (AAQS) for these pollutants.

Table 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Lead	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Source: CARB 2016

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

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

O_3: ozone; ppm: parts per million; µg/m^3: micrograms per cubic meter; PM_{10}: large particulate matter; AAM: Annual Arithmetic Mean; $PM_{2.5}$: fine particulate matter; CO: carbon monoxide; mg/m^3: milligrams per cubic meter; NO_2 nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer; –: No Standard.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. Areas that do not meet the NAAQS for a particular pollutant are

considered to be "nonattainment areas" for that pollutant. On June 3, 2016, the San Diego Air Basin (SDAB) was classified as a moderate nonattainment area for the 8-hour NAAQS for ozone. Effective June 3, 2016, the USEPA determined that 11 areas, including the SDAB, failed to attain the 2008 Ozone NAAQS by the applicable attainment date of July 20, 2015 and, thus, were reclassified as "Moderate" for the 2008 Ozone NAAQS (CARB 2018). The SDAB is an attainment area or unclassified for the NAAQS for all other criteria pollutants including PM_{10} and $PM_{2.5}$. The current federal attainment status for the SDAB is provided in Table 2, *Federal and State Air Quality Designation.*

Table 2
FEDERAL AND STATE AIR QUALITY DESIGNATIONS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	(No federal standard)	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable[1]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Source: SDAPCD 2018

[1] At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

2.1.2 National Emission Standards for Hazardous Air Pollutants

In accordance with Section 112 of the CAA, the USEPA established the National Emission Standards for Hazardous Air Pollutants (NESHAP) with the purpose of protecting the public from exposure to hazardous air pollutants, or air toxics, which include specific compounds known or suspected to cause cancer or other serious health effects. One of the primary air toxics regulated under NESHPA is asbestos, which was identified as a hazardous pollutant by the USEPA in 1971. The USEPA's regulations for asbestos under NESHAP are intended to minimize the release of asbestos fibers during activities involving the handling of asbestos. Specifically, NESHAP includes regulations that require thorough inspection and proper handling of asbestos-containing materials prior to and during demolition and renovation of facilities.

2.1.3 Lead Renovation, Repair and Painting Rule

USEPA's Lead Renovation, Repair and Painting Rule (RRP Rule), established in 2008 and amended in 2010 and 2011, aims to protect the public from lead-based paint (LBP) hazards associated with renovation, repair, and painting activities. The RRP Rule requires that firms performing renovation, repair, and painting projects that disturb LBP in homes, child care facilities, and pre-schools built before 1978 have their firm certified by USEPA (or an authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices.

2.2 STATE REGULATIONS

2.2.1 California Clean Air Act

The CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the seven criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H_2S), vinyl chloride and visibility-reducing particles (see Table 1). Areas that do not meet the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour), PM_{10}, and $PM_{2.5}$ (SDAPCD 2018). The current state attainment status for the SDAB is provided in Table 2.

The CARB is the state regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The SDAPCD is responsible for developing and implementing the rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, developing of air quality management plans, and adopting and enforcing air pollution regulations for the County.

2.2.2 State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain national ambient air quality standards (NAAQS). The 1990 amendments to the federal Clean Air Act set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The Code of Federal Regulations Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items which are included in the California SIP. At any one time, several California submittals are pending USEPA approval.

2.2.3 California Energy Code

California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards occurred in 2016 and went into effect on January 1, 2017. The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly

constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include improvements for attics, walls, water heating, and lighting. The 2019 standards will continue to improve upon the 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 standards will go into effect on January 1, 2020.

The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards – the energy budgets – that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach. Future development per the proposed CPU is required to be designed to meet the current Title 24 energy efficiency standards.

2.2.4 Toxic Air Contaminants

The Health and Safety Code (§39655, subd. (a)) defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807: H&SC Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase and the second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emissions data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. The Children's Environmental Health Protection Act, California SB 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SDAPCD's Regulation XII.

2.2.4.1 Diesel-exhaust Particulate Matter

Of particular concern statewide are DPM emissions. DPM was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide

average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by CARB and are listed as carcinogens under California's Proposition 65 or under the Federal Hazardous Air Pollutants program.

Following the identification of DPM as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles* (CARB 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to DPM by 85 percent by 2020.

2.2.4.2 Asbestos Containing Materials

The California Division of Occupational Safety and Heath, known as Cal/OSHA, enforces asbestos standards in construction, shipyards, and general industry. Following identification of Asbestos Containing Materials (ACMs) in facilities proposed for demolition or renovation, Cal/OSHA regulations require that asbestos trained and certified abatement personnel perform asbestos abatement and that all ACMs removed from on-site structures must be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. Registration with Cal/OSHA is required for contractors and employers that remove ACMs having an asbestos fiber content of more than 0.1 percent and 100 square feet or more of ACMs.

2.3 LOCAL REGULATIONS

2.3.1 Regional Air Quality Strategy

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for the attainment and maintenance of the AAQS in the SDAB. The SDAPCD prepared the San Diego County Regional Air Quality Strategy (RAQS), which was initially adopted in 1991, and is updated on a triennial basis. The most recent version of the RAQS was adopted by the SDAPCD in December 2016 (SDAPCD 2016). As part of, and attached to, the RAQS are the Transportation Control Measures for the air quality plan prepared by SANDAG. Together, the RAQS and Transportation Control Measures provide the framework for achieving attainment of the CAAQS. The local RAQS, in combination with the plans from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to the CARB, which develops the California SIP.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. While SANDAG collaborates with the SDAPCD on the development of the portion of the SIP applicable to the SDAB, the SDAPCD is the lead agency. As such, the SDAPCD is responsible for projecting all future mobile source emissions (using CARB's mobile source emissions inventory EMFAC2014).

2.3.2 San Diego Air Pollution Control District Rules

Future development pursuant to the proposed CPU is required to comply with SDAPCD Rules and Regulations which require the incorporation of best management practices (BMPs) during construction to reduce emissions of fugitive dust.

2.3.2.1 Rule 50 (Visible Emissions)

Particulate matter pollution impacts the environment by decreasing visibility (haze). These particles vary greatly in shape, size and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of $PM_{2.5}$. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment.

Visibility reduction is probably the most apparent symptom of air pollution. Visibility degradation is caused by the absorption and scattering of light by particles and gases in the atmosphere before it reaches the observer. As the number of fine particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range. Light absorption by gases and particles is sometimes the cause of discolorations in the atmosphere but usually does not contribute very significantly to visibility degradation. Scattering by particulates impairs visibility much more readily. SDAPCD Rule 50 (Visible Emissions) sets emission limits based on the apparent density or opacity of the emissions using the Ringelmann scale.

2.3.2.2 Rule 51 (Nuisance)

SDAPCD Rule 51 (Nuisance) states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property. The provisions of the rule do not apply to odors emanating from agricultural operations in the growing of crops or raising of fowls or animals.

2.3.2.3 Rule 55 (Fugitive Dust Control)

SDAPCD Rule 55 (Fugitive Dust Control) requires action be taken to limit dust from construction and demolition activities from leaving the property line. Similar to Rule 50 (Visible Emissions), Rule 55 (Fugitive Dust Control) places limits on the amount of visible dust emissions in the atmosphere beyond the property line. It further stipulates that visible dust on roadways as a result of track-out/carry-out shall be minimized through implementation of control measures and removed at the conclusion of each work day using street sweepers.

2.3.2.4 Rule 67.0.1 (Architectural Coatings)

Future development pursuant to the proposed CPU is required to comply with SDAPCD Rule 67.0.1 (Architectural Coatings) which sets the following standards:

- Residential interior coatings are to be less than or equal to 50 grams of VOC per liter (g/L)

- Residential exterior coatings are to be less than or equal to 100 g/L
- Non-residential interior/exterior coatings are to be less than or equal to 100 g/L

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB in which the CPU area is located, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity. Precipitation is limited to a few storms during the winter season. The climate of the County is characterized by hot, dry summers, and mild, wet winters.

The predominant wind direction in the vicinity of CPU area is from the west and the average wind speed is approximately 6 miles per hour (mph; Iowa Environmental Mesonet [IEM] 2018). The annual average maximum temperature in the CPU area is approximately 67 degrees Fahrenheit (ºF), and the average annual minimum temperature is approximately 56ºF. Total precipitation in the vicinity of the CPU area averages approximately 10 inches annually. Precipitation occurs mostly during the winter and is relatively infrequent during the summer (Western Regional Climate Center [WRCC] 2018).

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

3.2 EXISTING AIR QUALITY

3.2.1 Attainment Designations

Attainment designations are discussed in Sections 2.1.1 and 2.2.1, and in Table 2. The SDAB is a federal and state nonattainment area for ozone. The SDAB is also a state nonattainment area for PM_{10} and $PM_{2.5}$.

3.2.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the CPU area is the San Diego – Kearny Villa Road monitoring station located approximately a quarter-mile north of the CPU area's northern border at 6125 Kearny Villa Road. The most recently available air quality data are shown in Table 3, *Air Quality Monitoring Data*.

Monitoring data at the San Diego – Kearny Villa Road station showed acceptable levels of NO_2, PM_{10}, and $PM_{2.5}$ from 2016 to 2018. Violations of the state and federal 8-hour standards for ozone occurred in all three years sampled. The state 1-hour ozone standard was exceeded twice in 2017 and once in 2018.

Table 3
AIR QUALITY MONITORING DATA

Pollutant Standards	2016	2017	2018
Ozone (O_3)			
Maximum concentration 1-hour period (ppm)	0.087	0.097	0.102
Maximum concentration 8-hour period (ppm)	0.075	0.084	0.077
Days above 1-hour state standard (>0.09 ppm)	0	2	1
Days above 8-hour state/federal standard (>0.070 ppm)	3	6	5
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.053	0.054	0.045
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Suspended Particulates (PM_{10})			
Maximum 24-hour concentration (µg/m^3)	36.0	47.0	38.0
Days above state standard (>50 µg/m^3)	0	0	0
Days above federal standard (>150 µg/m^3)	0	0	0
Suspended Particulates ($PM_{2.5}$)			
Maximum 24-hour concentration (µg/m^3)	20.3	27.5	32.2
Days above federal standard (>35 µg/m^3)	0	0	0

Source: CARB 2019
ppm = parts per million; µg/m^3 = micrograms per cubic meter

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Air emissions from area and energy sources were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. CalEEMod is a computer model used to estimate air emissions resulting from land development projects throughout the state of California. CalEEMod was developed by the South Coast Air Quality Management District (SCAMQD) with the input of several air quality management and pollution control districts.

In brief, CalEEMod is a computer model that estimates criteria air pollutant and greenhouse gas emissions from mobile (i.e., vehicular) sources, area sources (fireplaces, woodstoves, and landscape maintenance equipment), energy use (electricity and natural gas used in space heating, ventilation, and cooling; lighting; and plug-in appliances), water use and wastewater generation, and solid waste disposal. Emissions are estimated based on land use information input to the model by the user.

In the first module, the user defines the specific land uses that will occur at the project site. The user also selects the appropriate land use setting (urban, suburban, or rural), operational year, location, climate zone, and utility provider. The input land uses, size features, and population are used throughout CalEEMod in determining default variables and calculations in each of the subsequent

modules. The input land use information consists of land use subtypes (such as the residential subtypes of single-family residential and multi-family medium-rise residential) and their unit or square footage quantities.

Subsequent modules include construction (including off-road vehicle emissions), mobile (on-road vehicle emissions), area sources (woodstoves, fireplaces, consumer products [cleansers, aerosols, solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste. Each module comprises multiple components including an associated mitigation module to account for further reductions in the reported baseline calculations. Other inputs include trip generation rates, trip lengths, vehicle fleet mix (percentage autos, medium truck, etc.), trip distribution (i.e., percent work to home, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters.

In various places the user can input additional information and/or override the default assumptions to account for project- or location-specific parameters. For this assessment the default parameters were not changed unless otherwise noted.

Regional mobile-source emissions were estimated based on CARB's Emission Factors model (EMFAC2014; CARB2014) and the vehicle miles travelled (VMT) for the area estimated in the Mobility Technical Report prepared for the CPU (City 2020). Based on the Mobility Technical Report, approximately 2,477,173 VMT are generated in the base year, build-out of the adopted Community Plan would generate approximately 2,809,408 VMT, and build-out of the CPU would generate approximately 3,698,527 VMT.

4.2 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

Thresholds used to evaluate potential air quality and odor impacts are based on applicable criteria in the State's California Environmental Quality Act (CEQA) Guidelines Appendix G, the City's CEQA Significance Determination Thresholds (2016), and applicable air district screening-level thresholds described below. Thresholds have been modified from the City's CEQA Significance Determination Thresholds to reflect a programmatic analysis for the proposed CPU. A significant air quality and/or odor impact could occur if the proposed CPU would:

1. Conflict with or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP;

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;

3. Result in a cumulatively considerable net increase for which the SDAB is in non-attainment under the NAAQS or CAAQS;

4. Expose sensitive receptors (including, but not limited to, residences, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations; or

5. Create objectionable odors affecting a substantial number of people.

To determine whether the proposed CPU would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, or (b) result in a

cumulatively considerable net increase of PM_{10} or $PM_{2.5}$ or exceed the quantitative thresholds for ozone precursors, oxides of nitrogen (NO_X) and VOCs, emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of a significance threshold for $PM_{2.5}$ from the SDAPCD or the City, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year was applied to this analysis.

For CEQA purposes, these screening criteria were used as numeric methods to determine if the proposed CPU's total emissions would result in a significant impact to air quality. The screening thresholds are included in Table 4, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 4
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant	Total Emissions		
Construction Emissions (Pounds/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 (VOCs)	137		
Operational Emissions			
	Pounds/Hour	**Pounds/Day**	**Tons/Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	55	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOCs)	---	137	15
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: City of San Diego 2016
T-BACT = Toxics-Best Available Control Technology

SDAPCD Rule 51 (Nuisance) prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area would be considered to be a significant, adverse odor impact.

5.0 PROJECT IMPACTS

This section evaluates potential air quality and odor impacts related to buildout of the proposed CPU.

5.1 ISSUE 1: CONSISTENCY WITH THE REGIONAL AIR QUALITY PLANS

5.1.1 Impacts

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for ozone. In addition, the SDAPCD relies on the SIP, which includes the SDAPCD's plans and control measures for attaining the ozone NAAQS. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the CalEPA and the CARB, and the emissions and reduction strategies related to mobile sources are considered in the RAQS and SIP.

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, and mobile, area, and all other source emissions in order to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. The CARB's mobile source emission projections and SANDAG's growth projections are based on population and vehicle trends, and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by these land use plans would be consistent with the RAQS. In the event that a project proposes development which is less dense than anticipated within the adopted land use plans, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the adopted land use plans and SANDAG's growth projections upon which the RAQS is based, the project would be in conflict with the RAQS and SIP and could have a potentially significant impact on air quality. This situation would warrant further analysis to determine if the proposed project and the surrounding projects would exceed the growth projections used in the RAQS for the specific subregional area.

The proposed project would increase the capacity for multi-family residential units and non-residential development in the CPU area. The proposed project is anticipated to increase the amount of commercial/retail, office, and recreational uses in the CPU area. Although the overall area of industrial uses in the CPU area would be reduced, the capacity for industrial uses on existing sites would be increased. Overall, the proposed project would increase the development potential within the CPU area. This supports the General Plan's City of Villages strategy to focus growth into mixed-use activity centers that are pedestrian-friendly, centers of community, and linked to the regional transit system. Implementation of this strategy can decrease VMT and reduce mobile emissions by placing different land uses in close proximity, which encourages use of alternate modes of transportation and shortens trip length for vehicular trips. The proposed CPU's policies, implementing actions, and design guidelines support General Plan concepts such as increased walkability, enhanced pedestrian and bicycle networks, improved connections to transit, and sustainable development and green building practices. The proposed project would be consistent with the SDAPCD's regional goals of providing infill housing, improving the balance between jobs and housing, and integrating land uses near major transportation corridors.

However, because the proposed project would result in greater density, future emissions associated with buildout of the proposed project would be greater than future emissions associated with buildout of the adopted Community Plan land uses. Additionally, the future VMT associated with estimated buildout of the proposed project would be greater than the VMT associated with estimated buildout of the adopted Community Plan, thereby resulting in greater mobile source emissions. Therefore, emissions of ozone precursors (ROG and NO_X) would be greater than what is accounted for in the RAQS. Thus, the proposed project would conflict with implementation of the RAQS and could have a potentially significant impact on regional air quality. Mitigation Measure AQ-1, below, is provided to reduce any potential significant impact of the proposed project; however, as the effectiveness of the measure cannot be guaranteed at this time, the impact would be considered significant and unavoidable.

5.1.2 Significance of Impacts

Because the CPU would result in greater population, density, and VMT when compared to the adopted Community Plan, future emissions associated with buildout of the proposed CPU would be greater than future emissions associated with buildout of the adopted Community Plan land uses. Therefore, emissions of ozone precursors (ROG and NO_X) would be greater than what is accounted for in the RAQS, and the proposed CPU would conflict with implementation of the RAQS and could have a potentially significant impact on regional air quality.

5.1.3 Mitigation Measures

Mitigation for inconsistencies with the regional air quality plans would be as follows:

AQ-1 Within six months of the certification of the Final Program Environmental Impact Report, the City shall provide a revised land use map and housing and employment forecast for the CPU area to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the proposed CPU.

5.1.4 Significance After Mitigation

The proposed CPU would not be consistent with the RAQS and SIP and would result in a significant and unavoidable impact. Mitigation Measure AQ-1 requires that the City provide a revised land use map and housing and employment forecast to SANDAG to ensure that any revisions to the population and employment projects are considered in the update of the RAQS and the SIP. The provision of housing information would assist SANDAG in revising the population forecasts; however, until the anticipated growth is included in the emission estimates of the RAQS and the SIP, the direct and cumulative impacts would remain significant and unavoidable. It should be noted that the SDAPCD may revise an emission reduction strategy if the district demonstrates to CARB, and CARB finds, that the modified strategy is at least as effective in improving air quality as the strategy being replaced. Nevertheless, even with implementation of Mitigation Measure AQ-1, impacts related to conflicts with the applicable air quality plan would remain significant and unavoidable.

5.2 ISSUE 2: CONFORMANCE TO FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

5.2.1 Impacts

Future development pursuant to the proposed CPU would generate criteria pollutants in the short term during construction and in the long term during operation. To determine whether a project would result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, the proposed CPU's emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 4).

5.2.1.1 Construction

Construction activities associated with new land uses proposed under the CPU would result in emissions of fugitive dust from demolition and site grading activities, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. Air pollutants generated by the construction of projects within the CPU area would vary depending upon the number of projects occurring simultaneously and the size of each individual project. The exact number and timing of all development projects that could occur under the CPU are unknown.

To illustrate the potential construction-related air quality impacts from projects that could occur throughout the CPU area, a hypothetical project was evaluated. The hypothetical project analyzed is a five-acre mixed-use development consisting of the demolition of a 20,000-square-foot structure and the construction of 300 multi-family residential units and 10,000 square feet of retail uses. This represents a typical project that could be constructed in the CPU area.

Construction emissions associated with the hypothetical project were calculated using CalEEMod. CalEEMod can estimate the required construction equipment when project-specific information is unavailable. The estimates are based on surveys performed by the SCAQMD and the Sacramento Metropolitan Air Quality Management District (SMAQMD) of typical construction projects, which provide a basis for scaling equipment needs and schedule with a project's size. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters.

As the proposed CPU does not identify any specific development project, CalEEMod default estimates were used to develop the construction scenario. Where applicable, inputs were modified to reflect local ordinances and regulations. This analysis assumes that standard dust and emission control during grading operations would be implemented to reduce potential nuisance impacts and to ensure compliance with SDAPCD Rule 55.0, Fugitive Dust Control. A VOC content of 150 grams per liter for exterior architectural coatings and 100 grams per liter for interior architectural coatings was assumed in accordance with SDAPCD Rule 67.0.1, Architectural Coatings. The results are summarized in Table 5, *Construction Emissions – 5-Acre Mixed-Use Project*. Detailed CalEEMod modeling output files for construction activities are included in Appendix A of this report.

Table 5
CONSTRUCTION EMISSIONS – 5-ACRE MIXED-USE PROJECT

Construction Phase	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	4	37	23	<1	2	2
Site Preparation	4	46	23	<1	11	7
Grading	3	28	17	<1	4	3
Building Construction	3	26	25	<1	3	2
Paving	1	14	15	<1	1	1
Architectural Coating	38	2	3	<1	<1	<1
Maximum Daily Emissions	*41*	*46*	*27*	*<1*	*11*	*7*
Significance Threshold	**137**	**250**	**550**	**250**	**100**	**55**

Source: CalEEMod (output data is provided in Appendix A)

Note that the emissions summarized in Table 5 are the maximum emissions for each pollutant that may occur during different phases of construction. They would not necessarily occur simultaneously. For assessing the significance of the air quality emissions resulting during construction of the hypothetical 5-acre mixed-use project, the construction emissions were compared to the thresholds shown in Table 5. As shown, the 5-acre mixed-use project would not result in air emissions that would exceed the applicable thresholds. However, if several projects of a similar size were to be constructed concurrently, implementation of the proposed CPU could exceed the significance thresholds.

The above hypothetical scenario described above provides a general assessment of an individual project; however, the exact number and timing of individual development projects that would occur as a result of implementation of the CPU are unknown at this time and therefore project-level emission estimates cannot conclusively be determined at the program level. Subsequent development projects would need to analyze specific construction-related criteria air pollutant impacts to ensure that emissions remain below SDAPCD thresholds. Because of the likely potential of individual projects to exceed SDAPCD screening thresholds, implementation of the CPU would result in potentially significant impacts related to construction emissions.

5.2.1.2 Operation

Operational source emissions would originate from traffic generated within or as a result of future development pursuant to the proposed CPU. Area source emissions would result from activities such as the use of fireplaces and consumer products. In addition, landscape maintenance activities associated would the proposed land uses would produce pollutant emissions.

Kearny Mesa CPU Characteristic Assumptions

CalEEMod prompts the user to enter a given project's location, setting, climate zone, utility provider, operational year, and the specific land uses that will occur. For this analysis, the location was selected as San Diego County with an urban (versus suburban or rural) setting, in climate zone 13, served by San Diego Gas & Electric (SDG&E). The operational year was set to 2050, consistent with the Mobility Technical Report and the horizon year of the proposed CPU.

Land Use Assumptions

For comparative purposes, air emissions were calculated for estimated buildout of land uses under the adopted Community Plan and under buildout of the proposed CPU for the year 2050 using CalEEMod 2016.3.2 and EMFAC2014. Based on data available in the Mobility Technical Report prepared for the CPU, Table 6, *Adopted Community Plan and Proposed CPU Buildout Land Uses*, lists the buildout land use quantities that were input to CalEEMod to estimate future Kearny Mesa area emissions for both the adopted Community Plan and proposed CPU (City 2020).

Table 6
ADOPTED COMMUNITY PLAN AND PROPOSED CPU BUILDOUT LAND USES

Land Use	Base Year (2012)	Adopted Community Plan			Proposed CPU		
		Existing to Remain from the Base Year	Proposed New Development	Plan Total	Existing to Remain from the Base Year	Proposed New Development	Plan Total
Single Family Residential (dwelling units)	144	144	0	144	144	0	144
Multi Family Residential (dwelling units)	2,388	2,388	3,025	5,413	2,388	23,294	25,682
Mobile Home (dwelling units)	325	325	0	325	0	0	0
Institutional (square feet)	3,335,516	3,335,516	1,236,656	4,572,172	3,335,516	6,097	3,341,613
Educational (square feet)	248,339	236,225	0	236,225	248,339	1,048,475	1,296,814
Commercial Office (square feet)	11,654,234	11,654,234	1,882,783	13,537,017	11,654,234	9,059,448	20,713,682
Retail (square feet)	7,244,096	7,244,096	1,733,169	8,977,265	7,244,096	4,852,943	12,097,039
Visitor Commercial (square feet)	571,027	571,027	129,528	700,555	571,027	285,108	856,135
Industrial	11,865,171	11,865,171	5,000,490	16,865,661	11,865,171	7,224,579	19,089,750
Parks and Recreation (acres)	95	83	2	85	78	2	80
Transportation (square feet)	235,284	195,878	0	195,878	145,533	0	145,533

Source: City of San Diego 2019

Portions of existing developed lands within the CPU area would remain, and likely not change. These include recently constructed multi-family residences, recently entitled projects, and existing major public and institutional uses. Because these existing developed land uses were built to older, less stringent code requirements than those applicable to future development or re-development, the existing developed land uses that will remain and not change, and the land uses that would be developed or redeveloped as part of the buildout of the adopted Community Plan or proposed CPU would have different energy consumptions associated with them. In order to reflect these energy consumption differences, emissions were estimated using two separate CalEEMod runs for the land uses in the adopted Community Plan and proposed CPU. These runs are discussed in further detail below.

The quantities listed in Table 6 include the existing developed land uses that were assumed to remain and not be redeveloped, and the proposed new development. It was assumed that the energy-related emissions associated with the existing land uses that would not be redeveloped were related to older energy codes, while those associated with new development projects would be the result of recent energy code revisions. The two model runs were then added together to obtain the total emissions associated with either the adopted Community Plan or CPU buildout.

Estimating Vehicle Emissions

Regional mobile-source emissions were estimated based on CARB's Emission Factors model (EMFAC2014; CARB2014) and the VMT for the area estimated in the Mobility Technical Report prepared for the CPU (City 2020). Based on the Mobility Technical Report, 2,477,173 VMT are generated in the base year, buildout of the adopted Community Plan would generate 2,809,408 VMT, and buildout of the proposed CPU would generate 3,698,527 VMT.

Estimating Energy Use Emissions

Air pollutants are emitted as a result of activities in buildings for which natural gas is used as an energy source. CalEEMod estimates emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by the natural gas air pollutant emission factors applicable to the project location and utility provider.

CalEEMod default energy values are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies, which identify energy use by building type and climate zone. Each land use type input to the land use module is mapped in the energy module to the appropriate CEUS and RASS building type. Because these studies are based on older buildings, adjustments were made in CalEEMod to account for changes to Title 24 building codes. The default adjustment is to the 2016 Title 24 energy code (part 6 of the building code). Should a user wish to simulate the 2005 Title 24 energy code, adjustments are available in the model by selecting the "use historical data" box.

For the CPU, energy emissions were estimated using two runs of the model. One run assumed the default 2016 Title 24 energy code for the portion of the total buildout land use quantities that would be new (i.e., the Proposed New Development land uses), and therefore constructed in accordance with the 2016 Title 24 energy code. The second model run for the CPU selected the historical data box for the portion of the total buildout land use quantities that comprise existing land uses that would not change

(i.e., the Existing to Remain from the Base Year land uses). The two model runs were then added together to obtain the total projected energy emissions associated with the proposed CPU buildout. Table 6 lists the buildout land use quantities that were input to the Existing to Remain from the Base Year and Proposed New Development CalEEMod energy module runs.

Estimating Area Source Emissions

This CalEEMod module estimates the emissions that would occur from the use of hearths, woodstoves, and landscaping equipment. This module also estimates emissions due to use of consumer products and architectural coatings that have VOCs. The use of hearths and woodstoves directly emits air pollutants from the combustion of natural gas, wood, or biomass, some of which are thus classified as biogenic. CalEEMod estimates emissions from hearths and woodstoves only for residential uses based on the type and size of features of the residential land use inputs.

The use of landscape equipment emits air pollutants associated with the equipment's fuel combustion. CalEEMod estimates the number and type of equipment needed based on the number of summer days given the project's location as entered in the project characteristics module. The model defaults for hearths, woodstoves, and landscaping equipment were assumed.

Architectural VOC emissions for operations are primarily associated with maintenance activities. These activities are not covered under CALGreen. However, coatings sold in the County must comply with SDAPCD Rule 67.0.1. For a conservative analysis, the upper end SDAPCD architectural coating VOC limit of 250 milligrams per liter was used in each run.

Total Operational Emissions

Program-level air emissions would exceed the City's project-level thresholds; however, project-level standards are not appropriate for a program-level analysis, as the thresholds are conservative and intended to ensure that multiple simultaneous individual projects would not obstruct the timely attainment of the NAAQS and CAAQS. Generally, discretionary, program-level planning activities, such as general plans, community plans, specific plans, etc., are evaluated for consistency with the local air quality plan. In contrast, project-level thresholds are applied to individual project-specific approvals, such as a proposed development project. Therefore, the analysis of the proposed CPU is based on the future emissions estimates and determining whether the increased emissions are significant based on their relationship to attainment strategies derived from the adopted Community Plan.

At the program level, the analysis considers emissions from build-out of the proposed CPU in relation to the adopted Community Plan to determine if the emissions would exceed the emissions estimates included in the RAQS. If such an exceedance occurs, then the proposed CPU would obstruct attainment or result in an exceedance of the AAQS and could cause the temporary or permanent exposure of persons to unhealthy concentrations of pollutants. As such, the analysis evaluates the potential for future development within the CPU area to result in, or contribute to, a violation of any air quality standard, based on a comparison of the total change in pollutant emissions projected to result from buildout of the adopted Community Plan in the year 2050 to buildout of the proposed CPU in the year 2050, and determines whether the total change in emissions is significant.

A summary of the modeling results, which includes mobile, area, and energy source emissions, is shown in Table 7, *Maximum Net Daily Operational Increase from Implementation of CPU*. As shown in Table 7,

operational emissions associated with the proposed CPU would be greater for all pollutants when compared to the adopted Community Plan.

Table 7
MAXIMUM NET DAILY OPERATIONAL INCREASE FROM IMPLEMENTATION OF CPU

Category	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Adopted Community Plan Emissions (Year 2050)						
Area	1,328	93	525	1	10	10
Energy	25	230	188	1	18	18
Mobile	531	731	3,977	17	319	130
Total Adopted	*1,884*	*1,054*	*4,689*	*19*	*347*	*158*
CPU Emissions (Year 2050)						
Area	2,480	410	2,291	3	43	43
Energy	37	333	259	2	26	26
Mobile	733	971	5,333	23	421	172
Total CPU	*3,249*	*1,714*	*7,883*	*27*	*489*	*240*
Net Emissions	**1,365**	**660**	**3,194**	**8**	**142**	**83**

Source: CalEEMod (output data is provided in Appendix A)

The regulations at the federal, state, and local levels provide a framework for developing project-level air quality protection measures for future discretionary projects. The City's process for the evaluation of discretionary projects includes environmental review and documentation pursuant to CEQA as well as an analysis of those projects for consistency with the goals, policies, and recommendations of the General Plan. However, it is possible that for certain projects, adherence to the regulations may not adequately protect air quality, and such projects would require additional measures to avoid or reduce significant air quality impacts. Ministerial projects would not be subject to further CEQA review. Because operational emissions associated with build-out of the proposed CPU would be greater for all pollutants when compared to the adopted Community Plan land uses and the assumptions used to develop the RAQS, and because there could be certain projects that would not be able to reduce emissions below the thresholds, this impact would be potentially significant.

5.2.2 Significance of Impacts

Criteria air pollutants generated during construction of new development pursuant to the CPU could exceed trigger levels established by the SDAPCD, thereby violating the NAAQS and CAAQS. Operational emissions associated with buildout of the proposed CPU would also be greater for all pollutants when compared to the adopted Community Plan. Implementation of the proposed CPU could result in a significant air quality impact.

5.2.3 Mitigation Framework

The following mitigation framework would reduce potential air quality impacts resulting from buildout under the proposed CPU.

AQ-2 Proposed development projects that are subject to CEQA and larger than the hypothetical 5-acre mixed-use scenario contained herein shall have construction-related air quality impacts analyzed using the latest available CalEEMod model, or other analytical method determined in

conjunction with the City. The results of the construction-related air quality impacts analysis shall be included in the development project's CEQA documentation. If such analyses identify potentially significant regional or local air quality impacts based on the City's emissions thresholds, the City shall require the incorporation of appropriate mitigation to reduce such impacts. Examples of potential mitigation measures are provided in Mitigation Measure AQ-3, below.

AQ-3 For individual construction projects greater than five acres that exceed the daily emissions thresholds established by the City, best available control measures/technology shall be incorporated to reduce construction emissions to the extent feasible. Best available control measures/technology shall include, but not be limited to, the following:

a. Minimizing simultaneous operation of multiple pieces of construction equipment;

b. Use of more efficient, or low pollutant emitting equipment, e.g., Tier III or Tier IV rated equipment;

c. Use of alternative fueled construction equipment;

d. Dust control measures for construction sites to minimize fugitive dust such as:

   i. Contractor(s) shall implement paving, chip sealing or chemical stabilization of internal roadways after completion of grading.

   ii. Dirt storage piles shall be stabilized by chemical binders, tarps, fencing or other erosion control.

   iii. A 15-mile per hour (mph) speed limit shall be enforced on unpaved surfaces.

   iv. On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.

   v. Haul trucks hauling dirt, sand, soil, or other loose materials shall be covered or 2 feet of freeboard shall be maintained.

   vi. Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County of San Diego (County) and/or SDAPCD to reduce dust generation.

   vii. Grading shall be terminated if winds exceed 25 mph.

   viii. Any blasting areas shall be wetted down prior to initiating the blast.

e. Minimizing idling time by construction vehicles.

AQ-4 Proposed development that are subject to CEQA shall have long-term operational-related air quality impacts analyzed using the latest available CalEEMod model, or other analytical method determined in conjunction with the City. The results of the operational-related air quality impacts analysis shall be included in the development project's CEQA documentation. If such analyses identify potentially significant regional or local air quality impacts based on the City's thresholds, the City shall require the incorporation of appropriate mitigation to reduce such impacts. Examples of potential measures shall include, but not be limited to, the following:

- Installation of electric vehicle charging stations;
- Improve walkability design and pedestrian network;
- Increase transit accessibility and frequency by incorporating Bus Rapid Transit routes included in the SANDAG Regional Plan; and/or
- Limit parking supply and unbundle parking costs. Lower parking supply below ITE rates and separate parking costs from property costs.

5.2.4 Significance After Mitigation

The ability of future development to successfully implement the actions required to fully meet these mitigation measures cannot be guaranteed at this time. In addition, even if the mitigation measures were fully satisfied by a future development, it is possible that the development would still result in a significant impact related to violating air quality standards. Thus, air pollutant impacts from construction and operation under the proposed CPU are considered significant and unavoidable at the program level.

5.3 ISSUE 3: CUMULATIVELY CONSIDERABLE NET INCREASE OF CRITERIA POLLUTANTS

5.3.1 Impacts

The cumulative area for regional air quality analysis is the SDAB. The SDAB is designated as a nonattainment area for ozone, PM_{10}, and $PM_{2.5}$ under State standards and a nonattainment area for ozone under federal standards. The RAQS is the most appropriate document for evaluating the CPU's cumulative effects because the RAQS evaluated air quality emissions for the whole of the SDAB using a future development scenario. According to Section 5.1 of this report, the proposed CPU would conflict with implementation of the RAQS. Furthermore, as discussed under Section 5.2, the proposed CPU's operational regional VOC (ozone precursor), as well as PM_{10}, and $PM_{2.5}$ emissions would be greater than the emissions under buildout of the adopted Community Plan. Because it cannot be demonstrated at the programmatic level, that future development would not exceed applicable air quality standards, impacts are considered cumulatively considerable and significant.

5.3.2 Significance of Impacts

The CPU's VOC emissions could contribute to existing violations of the state and federal ozone standards; the PM_{10} and $PM_{2.5}$ emissions could also contribute to existing violations of their respective standards. Impacts would be potentially significant.

5.3.3 Mitigation Framework

Mitigation Measures AQ-2 through AQ-4 would reduce criteria pollutant emissions. No additional mitigation is available.

5.3.4 Significance After Mitigation

As discussed previously, the proposed CPU is intended to further express General Plan policies in the CPU area through the provision of site-specific recommendations that implement city-wide goals and policies, address community needs, and guide zoning. The two documents work together to establish the framework for growth and development in the CPU area. The proposed CPU contains neighborhood-specific goals and recommendations that are consistent with the general goals stated in the General Plan. Mitigation Measures AQ-2 through AQ-4 would reduce criteria pollutant emissions but the contribution of air pollutants to the SDAB would result in a significant and unavoidable cumulative air quality impact on the SDAB.

5.4 ISSUE 4: IMPACTS TO SENSITIVE RECEPTORS

5.4.1 Impacts

Impacts to sensitive receptors are typically analyzed for operational period CO hotspots, and exposure to TACs. An analysis of the CPU's potential to expose sensitive receptors to these pollutants is provided below.

5.4.1.1 Carbon Monoxide Hotspots

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. Under specific meteorological conditions (e.g., stable conditions that result in poor dispersion), CO concentrations may reach unhealthy levels with respect to local sensitive land uses. Guidance for the evaluation of CO hot spots is provided in the Transportation Project-level Carbon Monoxide Protocol (CO protocol; Caltrans 1998). As indicated by the CO Protocol, CO hot spots occur nearly exclusively at signalized intersections operating at level of service (LOS) E or F.

The SDAB is a CO maintenance area under the federal CAA. This means that SDAB was previously a non-attainment area and is currently implementing a 10-year plan for continuing to meet and maintain air quality standards. Due to increased requirements for cleaner vehicles, equipment, and fuels, CO levels in the state have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, more recent screening procedures based on more current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District (SMAQMD) developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District (BAAQMD) developed a screening threshold in 2010, which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. This analysis conservatively assesses potential CO hot spots using the lower SMAQMD screening threshold of 31,600 vehicles per hour. Additionally, Sacramento and San Diego have the same federal and state CO attainment designations and, experience similar CO concentrations; thus, these screening volumes are appropriate for evaluating CO impacts in the SDAB. This screening volume has also been utilized by the SCAQMD, which also has the same CO designation.

According to the Mobility Technical Report, 44 of the 83 intersections analyzed within the CPU area would operate at LOS E or F during the mid-day, AM, or PM peak hour with buildout of the proposed CPU (City 2020). Peak hour turning volumes for these intersections were obtained from the Mobility

Technical Report and compared to the SMAQMD screening threshold of 31,600 vehicles per hour. The intersection with the greatest peak hour volume would be Ruffin Road at Balboa Avenue with a PM peak hour volume of 7,410 vehicles. Peak hour traffic volume at all intersections would be less than 31,600 vehicles per hour. Therefore, the proposed CPU is not anticipated to result in a CO hot spot, and impacts would be less than significant.

5.4.1.2 Exposure to Toxic Air Contaminants

Construction

Implementation of the proposed CPU would result in the construction of new buildings, structures, paved areas, and other improvements. Heavy-duty construction equipment, haul trucks, on-site generators, and construction worker vehicles associated with this construction could generate diesel particulate matter (DPM), which the CARB identified as a TAC. Generation of DPM from construction projects typically occurs in a localized area (e.g., at the project site) for a short period of time. Because construction activities and subsequent emissions vary depending on the phase of construction (e.g., grading, building construction), the construction-related emissions to which nearby receptors are exposed to would also vary throughout the construction period. During some equipment-intensive phases such as grading, construction-related emissions would be higher than other less equipment-intensive phases such as building construction or architectural coatings. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005).

The dose (of TAC) to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance in the environment and the extent of exposure a person has with the substance; a longer exposure period to a fixed amount of emissions would result in higher health risks. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents based on guidance from the Office of Environmental Health Hazard Assessment) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. Considering this information, the highly dispersive nature of DPM, and the fact that construction activities would occur intermittently and at various locations over the span of several years, it is not anticipated that the implementation of the proposed project would expose sensitive receptors to substantial construction-related TAC concentrations. Therefore, this impact would be less than significant.

Stationary Sources

The proposed CPU includes land uses which may generate air pollutants affecting adjacent sensitive land uses. In air quality terms, individual land uses that emit air pollutants in sufficient quantities are known as stationary sources. The primary concern with stationary sources is local; however, they also contribute to air pollution in the SDAB. Stationary sources include gasoline stations, power plants, dry cleaners, and other commercial and industrial uses. Stationary sources are regulated by the local air pollution control or management district through the issuance of permits; in this case, the agency is the SDAPCD. In their *Air Quality and Land Use Handbook: a Community Health Perspective*, CARB provided recommendations regarding the siting of new sensitive land uses near various known sources of TACs.

These siting recommendations have been reproduced in Table 8, *CARB Land Use Siting Recommendations.*

The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, AB 2588 was enacted in 1987, and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

Table 8
CARB LAND USE SITING RECOMMENDATIONS

Source Category	Recommended Buffer Distance (feet)
Freeways and High-Traffic Roads (freeways, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day)	500
Distribution Centers (that accommodate more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week)	1,000
Chrome Platers	1,000
Dry Cleaners using Perchloroethylene (1 machine)	300
Dry Cleaners using Perchloroethylene (2 machines)	500
Dry Cleaners using Perchloroethylene (3 or more machines)	Requires consultation with SDAPCD
Large Gas Station (3.6 million gallons or more per year)	300
Other Gas Stations	50

Source: CARB 2005

In accordance with AB 2588, any new facility proposed that would have the potential to emit TACS would be required to assess air toxic problems that would result from their facility's emissions. If air emissions from a specific facility include toxic substances or exceed identified limits, the facility is required by the SDAPCD to provide information regarding emission inventories and health risk assessments. If adverse health impacts exceeding public notification levels are identified, the facility would provide public notice, and if the facility poses a potentially significant public health risk, the facility must submit a risk reduction audit and plan to demonstrate how the facility would reduce health risks. Thus, with this regulatory framework, at the program level, impacts associated with stationary sources in the CPU area would be less than significant.

The proposed CPU would include the development of residential and commercial land uses. Residential land uses do not typically generate substantial TAC emissions. Commercial land uses may potentially include stationary sources of TACs, such as dry-cleaning establishments, gas stations, and diesel-fueled back-up generators. As discussed above, these types of stationary sources, in addition to any other stationary sources that may emit TACs would be subject to SDAPCD rules and regulations. Land uses that are more likely to generate substantial TAC emissions include industrial land uses that involve stationary sources and manufacturing processes.

Individual development projects could be located within the siting distances recommended by the CARB as identified above in Table 8, thereby potentially exposing sensitive receptors to elevated levels of

TACs. Therefore, impacts associated with exposure of TACs to sensitive uses would be potentially significant.

Asbestos Containing Material and Lead Based Paint

Asbestos dust and lead are known carcinogens classified as TACs by CARB. Both may be found in buildings constructed prior to 1979 when lead was used in lead-based paint (LBP) and asbestos was used as a component of building materials such as walls, ceilings, insulation, or fireproofing. Demolition and renovation of existing structures erected prior to 1979 could result in the disturbance of ACMs and LBP.

Airborne asbestos is regulated in accordance with the NESHAP asbestos regulations. Federal and state regulations prohibit emissions of asbestos from demolition or construction activities. Following identification of friable ACMs, federal and state Occupational and Safety Health Administration (OSHA) regulations require that asbestos trained, and certified abatement personnel perform asbestos abatement and that all asbestos-containing materials removed from on-site structures must be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. USEPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb LBP in homes, child care facilities and pre-schools built before 1978 have their firm certified by USEPA (or an authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices. These regulations specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers or lead dust and require notice to federal and/or local government agencies prior to beginning demolition or renovation that could disturb ACM. Therefore, compliance with established regulations would ensure that potential impacts associated with ACM and LBP would be less than significant.

5.4.2 Significance of Impacts

The analysis indicated there would be no potential for a CO hotspot or exposure of sensitive receptors to substantial, project generated, local CO emissions. Individual development projects could be located within the siting distances recommended by the CARB as identified above in Table 8, thereby potentially exposing sensitive receptors to elevated levels of TACs. Therefore, impacts associated with the exposure of TACs to sensitive uses would be potentially significant. Although redevelopment under the CPU may require the demolition or renovation of existing structures erected prior to 1979, which could result in the disturbance of ACMs and LBP, compliance with established regulations would ensure that potential impacts associated with exposure to ACMs and LBP would be less than significant.

5.4.3 Mitigation Framework

The following mitigation framework would reduce potential impacts of buildout under the proposed CPU related to the exposure of sensitive receptors to elevated levels of TACs.

AQ-5 Prior to the issuance of building permits for any facility within the siting distance identified in Table 8, a health risk assessment shall be prepared that demonstrates that health risks would be below the level of significance identified in Table 4.

5.4.4 Significance After Mitigation

Sensitive uses located within the siting distances of TAC-emitting facilities, indicated previously in Table 8, could be exposed to unacceptable TAC levels. While implementation of Mitigation Measure AQ-5 would reduce TAC impacts, the ability of future development to successfully implement the actions required to fully meet the health risk threshold cannot be guaranteed at this time. Thus, TAC impacts under the proposed CPU are considered significant and unavoidable at the program-level.

5.5 ISSUE 5: ODORS

5.5.1 Impacts

Emissions from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities may generate odors; however, these odors would be temporary, intermittent, and not expected to affect a substantial number of people. Additionally, noxious odors would be confined to the immediate vicinity of construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with construction-generated odors would be less than significant.

The type of facilities that are considered to generate objectionable odors during operation include wastewater treatments plants, landfills, and paint/coating operations (e.g., auto body shops), among others. The CPU proposes multi-family residential, commercial/retail, office, institutional, industrial, school, and park and open space land uses. The CPU would not introduce land uses that would generate substantial odor. While specific developments within the CPU area are not known at this program level of analysis, planned land uses would not encourage or support uses that would be associated with significant odor generation. Odors associated with restaurants or other commercial uses would be similar to existing residential and food service uses throughout the CPU area. Additionally, auto body shops would be required to comply with SDAPCD Rule 51 (Public Nuisance). Odor generation is generally confined to the immediate vicinity of the source. Thus, implementation of the proposed CPU and associated discretionary actions would not create operational-related objectionable odors affecting a substantial number of people within the City. Therefore, impacts related to objectionable odors would be less than significant.

5.5.2 Significance of Impacts

Potential construction-generated odors would be localized, temporary, intermittent, and not expected to affect a substantial number of people. The proposed CPU would not introduce land uses that would generate substantial odor during operations. Therefore, impacts associated with odors would be less than significant.

5.5.3 Mitigation Framework

Because there would be no significant impacts with respect to odors within the CPU area, no mitigation measures are required.

5.5.4 Significance After Mitigation

Impacts related to odors would be less than significant.

6.0 LIST OF PREPARERS

Victor Ortiz	Senior Air Quality Specialist
Joanne M. Dramko, AICP	Principal Technical Specialist, Quality Assurance Reviewer
Tim Belzman	Project Manager

7.0 REFERENCES

California Air Resources Board (CARB). 2019. Top 4 Measurements and Days Above the Standard. Available at: http://www.arb.ca.gov/adam/welcome.html. Accessed December 2019.

2018. Federal Standard Area Designations. Available at: https://www.arb.ca.gov/desig/feddesig.htm.

2016. Ambient Air Quality Standards. May 4. Available at: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

2014. 2014 EMission FACtors (EMFAC) model, version 1.07, update March 15, 2015.

2009. ARB Fact Sheet: Air Pollution and Health. December 2. Available at: http://www.arb.ca.gov/research/health/fs/fs1/fs1.htm.

2005. Air Quality and Land Use Handbook: A Community Health Perspective. April.

2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October.

California Department of Transportation (Caltrans). 1998. Caltrans ITS Transportation Project Level Carbon Monoxide Protocol.

Iowa Environmental Mesonet. 2018. San Diego/Montgomery Field Windrose Plot. Available at: http://mesonet.agron.iastate.edu/sites/windrose.phtml?network=CA_ASOS&station=MYF.

San Diego, City of. 2020. Kearny Mesa Community Plan Update Mobility Technical Report. January.

2019. Personnel communication with Lisa Lind (City of San Diego Planning Department). December 10.

2018. Kearny Mesa Community Plan. Last Amended/Adopted January 22. Electronic document. Available from: https://www.sandiego.gov/sites/default/files/kearny_mesa_cp_03-23-2018.pdf.

2016. California Environmental Quality Act Significance Determination Thresholds. July.

2002 *New Century Master Plan*. Last amended/adopted November.

1996 *Stonecrest Specific Plan*. Last Amended January.

San Diego Air Pollution Control District (SDAPCD). 2018. Attainment Status. Available at: http://www.sandiegocounty.gov/content/sdc/apcd/en/air-quality-planning/attainment-status.html. Accessed November 1, 2018.

2016. 2016 Revision of the Regional Air Quality Strategy for San Diego County. Final. December. Available at: http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2016%20RAQS.pdf.

U.S. Environmental Protection Agency (USEPA). 2018. Criteria Air Pollutants. Last updated March 8. Available at: https://www.epa.gov/criteria-air-pollutants.

Western Regional Climate Center, Western U.S. Climate Summaries, California, San Diego Seaworld (047741), 2018.

Appendix A

CalEEMod Output Data

KMCPU - Construction - 5-acre mixed use

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	300.00	Dwelling Unit	4.00	300,000.00	858
Strip Mall	10.00	1000sqft	1.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2020
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 - Land Use - 5-acres
300 multi-family units
10,000 square feet retail

Demolition -

Architectural Coating - SDAPCD Rule 67.0.1

Construction Phase - Architectural coatings simultaneous with last half of building construction

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblConstructionPhase	NumDays	18.00	115.00
tblConstructionPhase	PhaseEndDate	9/9/2020	7/21/2020
tblConstructionPhase	PhaseStartDate	8/15/2020	2/12/2020
tblLandUse	LotAcreage	7.89	4.00
tblLandUse	LotAcreage	0.23	1.00

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					
2019	4.4149	45.6281	24.7739	0.0540	18.2141	2.3914	20.6055	9.9699	2.2001	12.1700	0.0000	5,361.5221	5,361.5221	1.1964	0.0000	5,380.8152
2020	41.2223	25.4306	26.7925	0.0598	2.3907	1.2623	3.6529	0.6393	1.1935	1.8328	0.0000	5,889.1597	5,889.1597	0.7857	0.0000	5,908.8013
Maximum	**41.2223**	**45.6281**	**26.7925**	**0.0598**	**18.2141**	**2.3914**	**20.6055**	**9.9699**	**2.2001**	**12.1700**	**0.0000**	**5,889.1597**	**5,889.1597**	**1.1964**	**0.0000**	**5,908.8013**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.4149	45.6281	24.7739	0.0540	8.2777	2.3914	10.6691	4.5080	2.2001	6.7081	0.0000	5,361.5221	5,361.5221	1.1964	0.0000	5,380.8152
2020	41.2223	25.4306	26.7925	0.0598	2.3907	1.2623	3.6529	0.6393	1.1935	1.8328	0.0000	5,889.1597	5,889.1597	0.7857	0.0000	5,908.8013
Maximum	**41.2223**	**45.6281**	**26.7925**	**0.0598**	**8.2777**	**2.3914**	**10.6691**	**4.5080**	**2.2001**	**6.7081**	**0.0000**	**5,889.1597**	**5,889.1597**	**1.1964**	**0.0000**	**5,908.8013**

	ROG	NOx	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**	**48.22**	**0.00**	**40.96**	**51.48**	**0.00**	**39.01**	**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	Demolition	Demolition	7/19/2019	8/15/2019	5	20	
2	Site Preparation	Site Preparation	8/16/2019	8/22/2019	5	5	
3	Grading	Grading	8/23/2019	9/3/2019	5	8	
4	Building Construction	Building Construction	9/4/2019	7/21/2020	5	230	
5	Paving	Paving	7/22/2020	8/14/2020	5	18	
6	Architectural Coating	Architectural Coating	2/12/2020	7/21/2020	5	115	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 607,500; Residential Outdoor: 202,500; Non-Residential Indoor: 15,000; Non-Residential Outdoor: 5,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	91.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	219.00	34.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9966	0.0000	0.9966	0.1509	0.0000	0.1509			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**0.9966**	**1.7949**	**2.7915**	**0.1509**	**1.6697**	**1.8206**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0406	1.3807	0.3162	3.5500e-003	0.0795	5.2800e-003	0.0848	0.0218	5.0500e-003	0.0268		387.1635	387.1635	0.0361		388.0663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0666	0.0462	0.4386	1.2300e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		122.5371	122.5371	3.9500e-003		122.6359
Total	**0.1072**	**1.4269**	**0.7548**	**4.7800e-003**	**0.2027**	**6.1600e-003**	**0.2089**	**0.0545**	**5.8600e-003**	**0.0603**		**509.7006**	**509.7006**	**0.0401**		**510.7022**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4485	0.0000	0.4485	0.0679	0.0000	0.0679			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**	**0.4485**	**1.7949**	**2.2434**	**0.0679**	**1.6697**	**1.7376**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0406	1.3807	0.3162	3.5500e-003	0.0795	5.2800e-003	0.0848	0.0218	5.0500e-003	0.0268		387.1635	387.1635	0.0361		388.0663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0666	0.0462	0.4386	1.2300e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		122.5371	122.5371	3.9500e-003		122.6359
Total	**0.1072**	**1.4269**	**0.7548**	**4.7800e-003**	**0.2027**	**6.1600e-003**	**0.2089**	**0.0545**	**5.8600e-003**	**0.0603**		**509.7006**	**509.7006**	**0.0401**		**510.7022**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**18.0663**	**2.3904**	**20.4566**	**9.9307**	**2.1991**	**12.1298**		**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
Total	**0.0799**	**0.0554**	**0.5263**	**1.4800e-003**	**0.1479**	**1.0500e-003**	**0.1489**	**0.0392**	**9.7000e-004**	**0.0402**		**147.0445**	**147.0445**	**4.7400e-003**		**147.1631**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.4529	3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**	**0.0380**	**8.1298**	**2.3904**	**10.5202**	**4.4688**	**2.1991**	**6.6679**	**0.0000**	**3,766.4529**	**3,766.4529**	**1.1917**		**3,796.2445**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
Total	**0.0799**	**0.0554**	**0.5263**	**1.4800e-003**	**0.1479**	**1.0500e-003**	**0.1489**	**0.0392**	**9.7000e-004**	**0.0402**		**147.0445**	**147.0445**	**4.7400e-003**		**147.1631**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.5523**	**1.3974**	**7.9497**	**3.3675**	**1.2856**	**4.6531**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0666	0.0462	0.4386	1.2300e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		122.5371	122.5371	3.9500e-003		122.6359
Total	**0.0666**	**0.0462**	**0.4386**	**1.2300e-003**	**0.1232**	**8.8000e-004**	**0.1241**	**0.0327**	**8.1000e-004**	**0.0335**		**122.5371**	**122.5371**	**3.9500e-003**		**122.6359**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9486	0.0000	2.9486	1.5154	0.0000	1.5154			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**2.9486**	**1.3974**	**4.3459**	**1.5154**	**1.2856**	**2.8009**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0666	0.0462	0.4386	1.2300e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		122.5371	122.5371	3.9500e-003		122.6359
Total	**0.0666**	**0.0462**	**0.4386**	**1.2300e-003**	**0.1232**	**8.8000e-004**	**0.1241**	**0.0327**	**8.1000e-004**	**0.0335**		**122.5371**	**122.5371**	**3.9500e-003**		**122.6359**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1632	4.2190	1.2067	9.1500e-003	0.2302	0.0299	0.2600	0.0663	0.0286	0.0948		980.9009	980.9009	0.0827		982.9674
Worker	0.9725	0.6740	6.4034	0.0180	1.7990	0.0128	1.8119	0.4772	0.0118	0.4890		1,789.0411	1,789.0411	0.0577		1,790.4843
Total	**1.1358**	**4.8930**	**7.6101**	**0.0271**	**2.0292**	**0.0427**	**2.0719**	**0.5435**	**0.0404**	**0.5838**		**2,769.9420**	**2,769.9420**	**0.1404**		**2,773.4517**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**	**0.0000**	**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1632	4.2190	1.2067	9.1500e-003	0.2302	0.0299	0.2600	0.0663	0.0286	0.0948		980.9009	980.9009	0.0827		982.9674
Worker	0.9725	0.6740	6.4034	0.0180	1.7990	0.0128	1.8119	0.4772	0.0118	0.4890		1,789.0411	1,789.0411	0.0577		1,790.4843
Total	**1.1358**	**4.8930**	**7.6101**	**0.0271**	**2.0292**	**0.0427**	**2.0719**	**0.5435**	**0.0404**	**0.5838**		**2,769.9420**	**2,769.9420**	**0.1404**		**2,773.4517**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1331	3.8307	1.0839	9.0700e-003	0.2302	0.0191	0.2493	0.0663	0.0183	0.0845		973.9715	973.9715	0.0784		975.9309
Worker	0.9102	0.6079	5.8527	0.0174	1.7990	0.0126	1.8117	0.4772	0.0116	0.4888		1,732.5790	1,732.5790	0.0522		1,733.8831
Total	**1.0432**	**4.4386**	**6.9366**	**0.0265**	**2.0292**	**0.0317**	**2.0609**	**0.5435**	**0.0299**	**0.5734**		**2,706.5505**	**2,706.5505**	**0.1305**		**2,709.8139**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1331	3.8307	1.0839	9.0700e-003	0.2302	0.0191	0.2493	0.0663	0.0183	0.0845		973.9715	973.9715	0.0784		975.9309
Worker	0.9102	0.6079	5.8527	0.0174	1.7990	0.0126	1.8117	0.4772	0.0116	0.4888		1,732.5790	1,732.5790	0.0522		1,733.8831
Total	**1.0432**	**4.4386**	**6.9366**	**0.0265**	**2.0292**	**0.0317**	**2.0609**	**0.5435**	**0.0299**	**0.5734**		**2,706.5505**	**2,706.5505**	**0.1305**		**2,709.8139**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0416	0.4009	1.1900e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		118.6698	118.6698	3.5700e-003		118.7591
Total	**0.0623**	**0.0416**	**0.4009**	**1.1900e-003**	**0.1232**	**8.6000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**118.6698**	**118.6698**	**3.5700e-003**		**118.7591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0623	0.0416	0.4009	1.1900e-003	0.1232	8.6000e-004	0.1241	0.0327	8.0000e-004	0.0335		118.6698	118.6698	3.5700e-003		118.7591
Total	**0.0623**	**0.0416**	**0.4009**	**1.1900e-003**	**0.1232**	**8.6000e-004**	**0.1241**	**0.0327**	**8.0000e-004**	**0.0335**		**118.6698**	**118.6698**	**3.5700e-003**		**118.7591**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.6342					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**37.8764**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1829	0.1221	1.1759	3.4900e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		348.0981	348.0981	0.0105		348.3601
Total	**0.1829**	**0.1221**	**1.1759**	**3.4900e-003**	**0.3615**	**2.5400e-003**	**0.3640**	**0.0959**	**2.3400e-003**	**0.0982**		**348.0981**	**348.0981**	**0.0105**		**348.3601**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.6342					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**37.8764**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1829	0.1221	1.1759	3.4900e-003	0.3615	2.5400e-003	0.3640	0.0959	2.3400e-003	0.0982		348.0981	348.0981	0.0105		348.3601
Total	**0.1829**	**0.1221**	**1.1759**	**3.4900e-003**	**0.3615**	**2.5400e-003**	**0.3640**	**0.0959**	**2.3400e-003**	**0.0982**		**348.0981**	**348.0981**	**0.0105**		**348.3601**

KMCPU - Adopted Plan (Existing to Remain)

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	144.00	Dwelling Unit	46.75	259,200.00	412
Apartments Mid Rise	2,388.00	Dwelling Unit	62.84	2,388,000.00	6830
Mobile Home Park	325.00	Dwelling Unit	40.94	390,000.00	930
Junior College (2Yr)	3,335.52	1000sqft	76.57	3,335,516.00	0
High School	236.23	1000sqft	5.42	236,225.00	0
General Office Building	11,654.23	1000sqft	267.54	11,654,234.00	0
Strip Mall	7,244.10	1000sqft	166.30	7,244,096.00	0
Regional Shopping Center	571.03	1000sqft	13.11	571,027.00	0
Industrial Park	11,865.17	1000sqft	272.39	11,865,171.00	0
City Park	83.00	Acre	83.00	3,615,480.00	0
Enclosed Parking Structure	195.88	1000sqft	4.50	195,878.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
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

KMCPU - Adopted Plan (Existing to Remain) - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Not modeling for construction

Vehicle Trips - Mobile emissions calculated outside CalEEMod using EMFAC

Woodstoves - No woodstoves
Fireplaces modeled as natural gas only (90% NG, 10% no fireplace)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	PhaseEndDate	9/25/2818	7/27/2776
tblEnergyUse	LightingElect	2.63	2.63
tblEnergyUse	T24E	200.21	200.21
tblEnergyUse	T24E	3.92	3.92
tblEnergyUse	T24E	825.64	825.64
tblEnergyUse	T24E	550.61	550.61
tblEnergyUse	T24NG	4,108.03	4,108.03
tblEnergyUse	T24NG	21,589.28	21,589.28
tblEnergyUse	T24NG	24,260.55	24,260.55
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	1,313.40	2,149.00
tblFireplaces	NumberGas	178.75	293.00
tblFireplaces	NumberGas	79.20	130.00
tblFireplaces	NumberNoFireplace	238.80	239.00
tblFireplaces	NumberNoFireplace	32.50	32.00
tblFireplaces	NumberNoFireplace	14.40	14.00

tblFireplaces	NumberWood	835.80	0.00
tblFireplaces	NumberWood	113.75	0.00
tblFireplaces	NumberWood	50.40	0.00
tblLandUse	LandUseSquareFeet	3,335,520.00	3,335,516.00
tblLandUse	LandUseSquareFeet	11,654,200.00	11,654,234.00
tblLandUse	LandUseSquareFeet	7,244,100.00	7,244,096.00
tblLandUse	LandUseSquareFeet	11,865,200.00	11,865,171.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	SU_TR	20.43	0.00

tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	6.83	0.00
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWoodstoves	NumberCatalytic	119.40	0.00
tblWoodstoves	NumberCatalytic	16.25	0.00
tblWoodstoves	NumberCatalytic	7.20	0.00
tblWoodstoves	NumberNoncatalytic	119.40	0.00
tblWoodstoves	NumberNoncatalytic	16.25	0.00
tblWoodstoves	NumberNoncatalytic	7.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2776	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2776	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**7.4300e-003**	**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**

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	1,072.2858	45.4057	256.3954	0.2850		4.7693	4.7693		4.7693	4.7693	0.0000	54,897.9966	54,897.9966	1.4677	0.9985	55,232.2554
Energy	21.8043	197.8052	163.4554	1.1893		15.0648	15.0648		15.0648	15.0648		237,865.3257	237,865.3257	4.5591	4.3609	239,278.8404
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1,094.0902**	**243.2109**	**419.8508**	**1.4744**	**0.0000**	**19.8341**	**19.8341**	**0.0000**	**19.8341**	**19.8341**	**0.0000**	**292,763.3223**	**292,763.3223**	**6.0268**	**5.3594**	**294,511.0958**

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	1,072.2858	45.4057	256.3954	0.2850		4.7693	4.7693		4.7693	4.7693	0.0000	54,897.9966	54,897.9966	1.4677	0.9985	55,232.2554
Energy	21.8043	197.8052	163.4554	1.1893		15.0648	15.0648		15.0648	15.0648		237,865.3257	237,865.3257	4.5591	4.3609	239,278.8404
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1,094.0902**	**243.2109**	**419.8508**	**1.4744**	**0.0000**	**19.8341**	**19.8341**	**0.0000**	**19.8341**	**19.8341**	**0.0000**	**292,763.3223**	**292,763.3223**	**6.0268**	**5.3594**	**294,511.0958**

	ROG	NOx	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	Architectural Coating	Architectural Coating	7/28/2776	7/27/2776	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.5

Residential Indoor: 6,150,330; Residential Outdoor: 2,050,110; Non-Residential Indoor: 52,359,404; Non-Residential Outdoor: 17,453,135; Striped Parking Area: 11,753 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	3,264.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2776

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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 Architectural Coating - 2776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	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 Off-Site

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

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
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Junior College (2Yr)	0.00	0.00	0.00		
Mobile Home Park	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Mobile Home Park	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
City Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Enclosed Parking Structure	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
General Office Building	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
High School	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Industrial Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Junior College (2Yr)	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Mobile Home Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Regional Shopping Center	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Single Family Housing	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Strip Mall	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

5.0 Energy Detail

Historical Energy Use: Y

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	21.8043	197.8052	163.4554	1.1893		15.0648	15.0648		15.0648	15.0648		237,865.3257	237,865.3257	4.5591	4.3609	239,278.8404
NaturalGas Unmitigated	21.8043	197.8052	163.4554	1.1893		15.0648	15.0648		15.0648	15.0648		237,865.3257	237,865.3257	4.5591	4.3609	239,278.8404

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					
Apartments Mid Rise	37750.2	0.4071	3.4789	1.4804	0.0222		0.2813	0.2813		0.2813	0.2813		4,441.2041	4,441.2041	0.0851	0.0814	4,467.5960
City 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
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	752257	8.1126	73.7507	61.9506	0.4425		5.6051	5.6051		5.6051	5.6051		88,500.8068	88,500.8068	1.6963	1.6225	89,026.7228
High School	4452.68	0.0480	0.4365	0.3667	2.6200e-003		0.0332	0.0332		0.0332	0.0332		523.8446	523.8446	0.0100	9.6000e-003	526.9576
Industrial Park	765872	8.2594	75.0855	63.0719	0.4505		5.7065	5.7065		5.7065	5.7065		90,102.6362	90,102.6362	1.7270	1.6519	90,638.0711
Junior College (2Yr)	376959	4.0652	36.9568	31.0437	0.2217		2.8087	2.8087		2.8087	2.8087		44,348.1177	44,348.1177	0.8500	0.8131	44,611.6563
Mobile Home Park	21095.9	0.2275	1.9441	0.8273	0.0124		0.1572	0.1572		0.1572	0.1572		2,481.8666	2,481.8666	0.0476	0.0455	2,496.6151
Regional Shopping Center	3770.34	0.0407	0.3696	0.3105	2.2200e-003		0.0281	0.0281		0.0281	0.0281		443.5697	443.5697	8.5000e-003	8.1300e-003	446.2056
Single Family Housing	11867	0.1280	1.0936	0.4654	6.9800e-003		0.0884	0.0884		0.0884	0.0884		1,396.1176	1,396.1176	0.0268	0.0256	1,404.4140
Strip Mall	47830.9	0.5158	4.6893	3.9390	0.0281		0.3564	0.3564		0.3564	0.3564		5,627.1624	5,627.1624	0.1079	0.1032	5,660.6018
Total		**21.8043**	**197.8051**	**163.4554**	**1.1893**		**15.0648**	**15.0648**		**15.0648**	**15.0648**		**237,865.3257**	**237,865.3257**	**4.5591**	**4.3609**	**239,278.8404**

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					
Apartments Mid Rise	37.7502	0.4071	3.4789	1.4804	0.0222		0.2813	0.2813		0.2813	0.2813		4,441.2041	4,441.2041	0.0851	0.0814	4,467.5960
City 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
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	752.257	8.1126	73.7507	61.9506	0.4425		5.6051	5.6051		5.6051	5.6051		88,500.8068	88,500.8068	1.6963	1.6225	89,026.7228
High School	4.45268	0.0480	0.4365	0.3667	2.6200e-003		0.0332	0.0332		0.0332	0.0332		523.8446	523.8446	0.0100	9.6000e-003	526.9576
Industrial Park	765.872	8.2594	75.0855	63.0719	0.4505		5.7065	5.7065		5.7065	5.7065		90,102.6362	90,102.6362	1.7270	1.6519	90,638.0711
Junior College (2Yr)	376.959	4.0652	36.9568	31.0437	0.2217		2.8087	2.8087		2.8087	2.8087		44,348.1177	44,348.1177	0.8500	0.8131	44,611.6563
Mobile Home Park	21.0959	0.2275	1.9441	0.8273	0.0124		0.1572	0.1572		0.1572	0.1572		2,481.8666	2,481.8666	0.0476	0.0455	2,496.6151
Regional Shopping Center	3.77034	0.0407	0.3696	0.3105	2.2200e-003		0.0281	0.0281		0.0281	0.0281		443.5697	443.5697	8.5000e-003	8.1300e-003	446.2056
Single Family Housing	11.867	0.1280	1.0936	0.4654	6.9800e-003		0.0884	0.0884		0.0884	0.0884		1,396.1176	1,396.1176	0.0268	0.0256	1,404.4140
Strip Mall	47.8309	0.5158	4.6893	3.9390	0.0281		0.3564	0.3564		0.3564	0.3564		5,627.1624	5,627.1624	0.1079	0.1032	5,660.6018
Total		**21.8043**	**197.8051**	**163.4554**	**1.1893**		**15.0648**	**15.0648**		**15.0648**	**15.0648**		**237,865.3257**	**237,865.3257**	**4.5591**	**4.3609**	**239,278.8404**

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	1,072.2858	45.4057	256.3954	0.2850		4.7693	4.7693		4.7693	4.7693	0.0000	54,897.9966	54,897.9966	1.4677	0.9985	55,232.2554
Unmitigated	1,072.2858	45.4057	256.3954	0.2850		4.7693	4.7693		4.7693	4.7693	0.0000	54,897.9966	54,897.9966	1.4677	0.9985	55,232.2554

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	247.7018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	812.2459					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9927	42.6649	18.1553	0.2723		3.4495	3.4495		3.4495	3.4495	0.0000	54,465.8824	54,465.8824	1.0439	0.9985	54,789.5459
Landscaping	7.3454	2.7408	238.2401	0.0127		1.3198	1.3198		1.3198	1.3198		432.1143	432.1143	0.4238		442.7096
Total	**1,072.2859**	**45.4057**	**256.3954**	**0.2850**		**4.7693**	**4.7693**		**4.7693**	**4.7693**	**0.0000**	**54,897.9966**	**54,897.9966**	**1.4677**	**0.9985**	**55,232.2554**

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	247.7018					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	812.2459					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9927	42.6649	18.1553	0.2723		3.4495	3.4495		3.4495	3.4495	0.0000	54,465.8824	54,465.8824	1.0439	0.9985	54,789.5459
Landscaping	7.3454	2.7408	238.2401	0.0127		1.3198	1.3198		1.3198	1.3198		432.1143	432.1143	0.4238		442.7096
Total	**1,072.2859**	**45.4057**	**256.3954**	**0.2850**		**4.7693**	**4.7693**		**4.7693**	**4.7693**	**0.0000**	**54,897.9966**	**54,897.9966**	**1.4677**	**0.9985**	**55,232.2554**

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

KMCPU - Adopted Plan (Proposed New Development)

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,882.78	1000sqft	43.22	1,882,783.00	0
Junior College (2Yr)	1,236.66	1000sqft	28.39	1,236,656.00	0
Industrial Park	500.49	1000sqft	11.49	500,490.00	0
City Park	2.00	Acre	2.00	87,120.00	0
Apartments Mid Rise	3,025.00	Dwelling Unit	79.61	3,025,000.00	8652
Regional Shopping Center	129.53	1000sqft	2.97	129,528.00	0
Strip Mall	1,733.17	1000sqft	39.79	1,733,169.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
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

KMCPU - Adopted Plan (Proposed New Development) - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Not modeling for construction

Vehicle Trips - Mobile emissions calculated outside CalEEMod using EMFAC

Woodstoves - No woodstoves
Fireplaces modeled as natural gas only (90% NG, 10% no fireplace)

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	330.00	0.00
tblConstructionPhase	PhaseEndDate	10/20/2020	7/16/2019
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	1,663.75	2,723.00
tblFireplaces	NumberNoFireplace	302.50	302.00
tblFireplaces	NumberWood	1,058.75	0.00
tblLandUse	LandUseSquareFeet	1,882,780.00	1,882,783.00
tblLandUse	LandUseSquareFeet	1,236,660.00	1,236,656.00
tblLandUse	LandUseSquareFeet	1,733,170.00	1,733,169.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00

tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	6.83	0.00
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWoodstoves	NumberCatalytic	151.25	0.00
tblWoodstoves	NumberNoncatalytic	151.25	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.1773	0.0000	0.0000	0.1735	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1773**	**0.0000**	**0.0000**	**0.1735**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.1773	0.0000	0.0000	0.1735	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1773**	**0.0000**	**0.0000**	**0.1735**	**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**

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	255.5759	48.0428	268.2476	0.3015		5.0380	5.0380		5.0380	5.0380	0.0000	58,114.1004	58,114.1004	1.5360	1.0572	58,467.5365
Energy	3.5362	31.7851	24.3478	0.1929		2.4432	2.4432		2.4432	2.4432		38,576.6684	38,576.6684	0.7394	0.7072	38,805.9103
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**259.1121**	**79.8278**	**292.5954**	**0.4944**	**0.0000**	**7.4812**	**7.4812**	**0.0000**	**7.4812**	**7.4812**	**0.0000**	**96,690.7688**	**96,690.7688**	**2.2754**	**1.7644**	**97,273.4467**

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	255.5759	48.0428	268.2476	0.3015		5.0380	5.0380		5.0380	5.0380	0.0000	58,114.1004	58,114.1004	1.5360	1.0572	58,467.5365
Energy	3.5362	31.7851	24.3478	0.1929		2.4432	2.4432		2.4432	2.4432		38,576.6684	38,576.6684	0.7394	0.7072	38,805.9103
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**259.1121**	**79.8278**	**292.5954**	**0.4944**	**0.0000**	**7.4812**	**7.4812**	**0.0000**	**7.4812**	**7.4812**	**0.0000**	**96,690.7688**	**96,690.7688**	**2.2754**	**1.7644**	**97,273.4467**

	ROG	NOx	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	Architectural Coating	Architectural Coating	7/17/2019	7/16/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 6,125,625; Residential Outdoor: 2,041,875; Non-Residential Indoor: 8,223,939; Non-Residential Outdoor: 2,741,313; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	829.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2019

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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 Architectural Coating - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	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 Off-Site

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

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
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Junior College (2Yr)	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Strip Mall	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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
City Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
General Office Building	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Industrial Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Junior College (2Yr)	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Regional Shopping Center	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Strip Mall	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

KMCPU - Adopted Plan (Proposed New Development) - 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	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.5362	31.7851	24.3478	0.1929		2.4432	2.4432		2.4432	2.4432		38,576.6684	38,576.6684	0.7394	0.7072	38,805.9103
NaturalGas Unmitigated	3.5362	31.7851	24.3478	0.1929		2.4432	2.4432		2.4432	2.4432		38,576.6684	38,576.6684	0.7394	0.7072	38,805.9103

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					
Apartments Mid Rise	61567	0.6640	5.6738	2.4144	0.0362		0.4587	0.4587		0.4587	0.4587		7,243.1712	7,243.1712	0.1388	0.1328	7,286.2137
City 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
General Office Building	104146	1.1232	10.2104	8.5768	0.0613		0.7760	0.7760		0.7760	0.7760		12,252.5024	12,252.5024	0.2348	0.2246	12,325.3129
Industrial Park	27684.6	0.2986	2.7142	2.2799	0.0163		0.2063	0.2063		0.2063	0.2063		3,257.0163	3,257.0163	0.0624	0.0597	3,276.3711
Junior College (2Yr)	123124	1.3278	12.0709	10.1396	0.0724		0.9174	0.9174		0.9174	0.9174		14,485.1181	14,485.1181	0.2776	0.2656	14,571.1960
Regional Shopping Center	791.363	8.5300e-003	0.0776	0.0652	4.7000e-004		5.9000e-003	5.9000e-003		5.9000e-003	5.9000e-003		93.1015	93.1015	1.7800e-003	1.7100e-003	93.6548
Strip Mall	10589	0.1142	1.0381	0.8720	6.2300e-003		0.0789	0.0789		0.0789	0.0789		1,245.7589	1,245.7589	0.0239	0.0228	1,253.1618
Total		**3.5362**	**31.7851**	**24.3478**	**0.1929**		**2.4432**	**2.4432**		**2.4432**	**2.4432**		**38,576.6684**	**38,576.6684**	**0.7394**	**0.7072**	**38,805.9103**

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					
Apartments Mid Rise	61.567	0.6640	5.6738	2.4144	0.0362		0.4587	0.4587		0.4587	0.4587		7,243.1712	7,243.1712	0.1388	0.1328	7,286.2137
City 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
General Office Building	104.146	1.1232	10.2104	8.5768	0.0613		0.7760	0.7760		0.7760	0.7760		12,252.5024	12,252.5024	0.2348	0.2246	12,325.3129
Industrial Park	27.6846	0.2986	2.7142	2.2799	0.0163		0.2063	0.2063		0.2063	0.2063		3,257.0163	3,257.0163	0.0624	0.0597	3,276.3711
Junior College (2Yr)	123.124	1.3278	12.0709	10.1396	0.0724		0.9174	0.9174		0.9174	0.9174		14,485.1181	14,485.1181	0.2776	0.2656	14,571.1960
Regional Shopping Center	0.791363	8.5300e-003	0.0776	0.0652	4.7000e-004		5.9000e-003	5.9000e-003		5.9000e-003	5.9000e-003		93.1015	93.1015	1.7800e-003	1.7100e-003	93.6548
Strip Mall	10.589	0.1142	1.0381	0.8720	6.2300e-003		0.0789	0.0789		0.0789	0.0789		1,245.7589	1,245.7589	0.0239	0.0228	1,253.1618
Total		**3.5362**	**31.7851**	**24.3478**	**0.1929**		**2.4432**	**2.4432**		**2.4432**	**2.4432**		**38,576.6684**	**38,576.6684**	**0.7394**	**0.7072**	**38,805.9103**

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	255.5759	48.0428	268.2476	0.3015		5.0380	5.0380		5.0380	5.0380	0.0000	58,114.1004	58,114.1004	1.5360	1.0572	58,467.5365
Unmitigated	255.5759	48.0428	268.2476	0.3015		5.0380	5.0380		5.0380	5.0380	0.0000	58,114.1004	58,114.1004	1.5360	1.0572	58,467.5365

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	60.7400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	182.0677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.2858	45.1698	19.2212	0.2883		3.6520	3.6520		3.6520	3.6520	0.0000	57,663.5294	57,663.5294	1.1052	1.0572	58,006.1949
Landscaping	7.4825	2.8730	249.0264	0.0132		1.3860	1.3860		1.3860	1.3860		450.5710	450.5710	0.4308		461.3415
Total	**255.5759**	**48.0428**	**268.2476**	**0.3015**		**5.0380**	**5.0380**		**5.0380**	**5.0380**	**0.0000**	**58,114.1004**	**58,114.1004**	**1.5360**	**1.0572**	**58,467.5365**

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	60.7400					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	182.0677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	5.2858	45.1698	19.2212	0.2883		3.6520	3.6520		3.6520	3.6520	0.0000	57,663.5294	57,663.5294	1.1052	1.0572	58,006.1949
Landscaping	7.4825	2.8730	249.0264	0.0132		1.3860	1.3860		1.3860	1.3860		450.5710	450.5710	0.4308		461.3415
Total	**255.5759**	**48.0428**	**268.2476**	**0.3015**		**5.0380**	**5.0380**		**5.0380**	**5.0380**	**0.0000**	**58,114.1004**	**58,114.1004**	**1.5360**	**1.0572**	**58,467.5365**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2050
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	VehClass	Fuel	SD Population	% Population	KMCP Population	SD VMT	% VMT	KMCP VMT	SD Trips	% Trips	KMCP Trips
San Diego	All Other Buses	DSL	850	0.02%	25	45,528	0.05%	1,270	-	0.00%	0
San Diego	LDA	GAS	1,793,604	52.20%	53,450	51,627,404	51.27%	1,440,393	11,340,178	53.23%	337,941
San Diego	LDA	DSL	24,990	0.73%	745	720,524	0.72%	20,102	158,131	0.74%	4,712
San Diego	LDA	ELEC	330,257	9.61%	9,842	9,581,514	9.52%	267,322	2,095,811	9.84%	62,456
San Diego	LDT1	GAS	128,354	3.74%	3,825	3,617,314	3.59%	100,922	796,424	3.74%	23,734
San Diego	LDT1	DSL	72	0.00%	2	2,013	0.00%	56	444	0.00%	13
San Diego	LDT1	ELEC	57	0.00%	2	1,621	0.00%	45	356	0.00%	11
San Diego	LDT2	GAS	588,068	17.12%	17,525	17,656,932	17.53%	492,624	3,721,796	17.47%	110,911
San Diego	LDT2	DSL	1,295	0.04%	39	38,906	0.04%	1,085	8,200	0.04%	244
San Diego	LHD1	GAS	11,221	0.33%	334	335,072	0.33%	9,348	167,180	0.78%	4,982
San Diego	LHD1	DSL	26,200	0.76%	781	751,699	0.75%	20,972	329,564	1.55%	9,821
San Diego	LHD2	GAS	4,979	0.14%	148	153,807	0.15%	4,291	74,185	0.35%	2,211
San Diego	LHD2	DSL	12,296	0.36%	366	379,840	0.38%	10,597	154,671	0.73%	4,609
San Diego	MCY	GAS	92,143	2.68%	2,746	554,061	0.55%	15,458	184,267	0.86%	5,491
San Diego	MDV	GAS	330,565	9.62%	9,851	9,402,705	9.34%	262,333	2,056,216	9.65%	61,276
San Diego	MDV	DSL	9,428	0.27%	281	269,940	0.27%	7,531	58,881	0.28%	1,755
San Diego	MH	GAS	7,123	0.21%	212	52,492	0.05%	1,465	713	0.00%	21
San Diego	MH	DSL	2,005	0.06%	60	14,740	0.01%	411	200	0.00%	6
San Diego	Motor Coach	DSL	361	0.01%	11	46,685	0.05%	1,303	-	0.00%	0
San Diego	OBUS	GAS	2,456	0.07%	73	110,723	0.11%	3,089	49,147	0.23%	1,465
San Diego	PTO	DSL	-	0.00%	0	48,221	0.05%	1,345	-	0.00%	0
San Diego	SBUS	GAS	830	0.02%	25	33,261	0.03%	928	3,319	0.02%	99
San Diego	SBUS	DSL	1,395	0.04%	42	47,180	0.05%	1,316	-	0.00%	0
San Diego	T6 Ag	DSL	266	0.01%	8	3,929	0.00%	110	-	0.00%	0
San Diego	T6 CAIRP heavy	DSL	70	0.00%	2	3,158	0.00%	88	-	0.00%	0
San Diego	T6 CAIRP small	DSL	177	0.01%	5	9,695	0.01%	270	-	0.00%	0
San Diego	T6 instate construction heavy	DSL	956	0.03%	28	73,804	0.07%	2,059	-	0.00%	0
San Diego	T6 instate construction small	DSL	4,379	0.13%	130	198,268	0.20%	5,532	-	0.00%	0
San Diego	T6 instate heavy	DSL	8,591	0.25%	256	434,840	0.43%	12,132	-	0.00%	0
San Diego	T6 instate small	DSL	22,317	0.65%	665	1,096,430	1.09%	30,590	-	0.00%	0
San Diego	T6 OOS heavy	DSL	40	0.00%	1	1,810	0.00%	50	-	0.00%	0
San Diego	T6 OOS small	DSL	102	0.00%	3	5,555	0.01%	155	-	0.00%	0
San Diego	T6 Public	DSL	2,697	0.08%	80	45,074	0.04%	1,258	-	0.00%	0
San Diego	T6 utility	DSL	344	0.01%	10	6,478	0.01%	181	-	0.00%	0
San Diego	T6TS	GAS	4,640	0.14%	138	203,127	0.20%	5,667	92,840	0.44%	2,767
San Diego	T7 Ag	DSL	244	0.01%	7	2,922	0.00%	82	-	0.00%	0
San Diego	T7 CAIRP	DSL	1,982	0.06%	59	483,143	0.48%	13,480	-	0.00%	0
San Diego	T7 CAIRP construction	DSL	260	0.01%	8	52,356	0.05%	1,461	-	0.00%	0
San Diego	T7 NNOOS	DSL	2,529	0.07%	75	599,098	0.59%	16,715	-	0.00%	0
San Diego	T7 NOOS	DSL	783	0.02%	23	190,841	0.19%	5,324	-	0.00%	0
San Diego	T7 other port	DSL	838	0.02%	25	149,856	0.15%	4,181	-	0.00%	0
San Diego	T7 POLA	DSL	497	0.01%	15	106,599	0.11%	2,974	-	0.00%	0
San Diego	T7 Public	DSL	1,418	0.04%	42	32,496	0.03%	907	-	0.00%	0
San Diego	T7 Single	DSL	2,064	0.06%	62	242,848	0.24%	6,775	-	0.00%	0
San Diego	T7 single construction	DSL	1,440	0.04%	43	135,439	0.13%	3,779	-	0.00%	0
San Diego	T7 SWCV	DSL	2,184	0.06%	65	100,623	0.10%	2,807	-	0.00%	0
San Diego	T7 tractor	DSL	5,625	0.16%	168	733,911	0.73%	20,476	-	0.00%	0
San Diego	T7 tractor construction	DSL	1,212	0.04%	36	100,980	0.10%	2,817	-	0.00%	0
San Diego	T7 utility	DSL	146	0.00%	4	3,328	0.00%	93	-	0.00%	0
San Diego	T7IS	GAS	261	0.01%	8	27,238	0.03%	760	5,222	0.02%	156
San Diego	UBUS	GAS	679	0.02%	20	80,825	0.08%	2,255	2,718	0.01%	81
San Diego	UBUS	DSL	669	0.02%	20	79,601	0.08%	2,221	2,676	0.01%	80
			3,435,960		*102,393*	*100,696,455*		*2,809,408*	*21,303,139*		*634,840*

ROG																				
ROG_RUNEX			ROG_IDLEX			ROG_STREX			ROG_HOTSOAK			ROG_RUNLOSS			ROG_RESTLOSS			ROG_DIURN		
g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/trip	g	lb	g/trip	g	lb	g/veh/day	g	lb	g/veh/day	g	lb
0.05	58.75	0.13	0.02	0.40	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	16,984.09	37.44	-	-	-	0.06	20,550.84	45.31	0.03	9,533.32	21.02	0.14	47,316.96	104.32	0.06	3,389.42	7.47	0.05	2,469.04	5.44
0.00	86.82	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	0.00	305.03	0.67	-	-	-	0.01	69.20	0.15	0.02	166.64	0.37
0.00	419.31	0.92	-	-	-	0.01	212.83	0.47	0.04	994.69	2.19	0.18	4,166.56	9.19	0.12	465.73	1.03	0.08	318.03	0.70
0.02	0.86	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	0.00	0.05	0.00	-	-	-	0.01	0.01	0.00	0.02	0.03	0.00
0.00	2,262.11	4.99	-	-	-	0.01	1,353.00	2.98	0.03	3,426.64	7.55	0.15	16,361.38	36.07	0.12	2,048.79	4.52	0.08	1,486.43	3.28
0.01	16.18	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	55.86	0.12	0.21	69.59	0.15	0.09	430.36	0.95	0.05	250.03	0.55	0.27	1,327.12	2.93	0.02	7.48	0.02	0.02	7.49	0.02
0.12	2,585.73	5.70	0.11	85.70	0.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	25.00	0.06	0.20	30.00	0.07	0.08	167.33	0.37	0.04	90.41	0.20	0.21	466.37	1.03	0.02	2.72	0.01	0.02	2.77	0.01
0.12	1,281.10	2.82	0.11	40.22	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.29	35,444.70	78.14	-	-	-	1.96	10,783.57	23.77	0.62	3,430.78	7.56	1.22	6,689.84	14.75	1.34	3,686.02	8.13	1.84	5,043.77	11.12
0.01	1,319.68	2.91	-	-	-	0.01	874.12	1.93	0.06	3,723.00	8.21	0.18	10,944.20	24.13	0.26	2,553.57	5.63	0.18	1,761.93	3.88
0.00	36.38	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	15.86	0.03	-	-	-	0.23	4.88	0.01	0.02	0.46	0.00	0.27	5.76	0.01	0.02	5.22	0.01	0.03	6.91	0.02
0.07	30.48	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	105.52	0.23	0.86	9.22	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	33.96	0.07	0.59	43.22	0.10	0.26	379.60	0.84	0.02	24.55	0.05	0.20	292.35	0.64	0.02	1.41	0.00	0.03	1.89	0.00
0.20	264.81	0.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	11.05	0.02	8.25	203.96	0.45	0.67	66.74	0.15	0.07	7.28	0.02	0.49	48.37	0.11	0.02	0.57	0.00	0.03	0.76	0.00
0.06	76.66	0.17	0.09	3.56	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.05	5.51	0.01	0.02	0.13	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	3.72	0.01	0.02	0.03	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	10.83	0.02	0.02	0.08	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.05	97.00	0.21	0.02	0.45	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	240.78	0.53	0.02	2.06	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	543.06	1.20	0.02	4.05	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	1,325.16	2.92	0.02	10.51	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	2.13	0.00	0.02	0.02	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	6.20	0.01	0.02	0.05	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	44.22	0.10	0.02	1.29	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.03	5.93	0.01	0.02	0.16	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	61.79	0.14	0.79	109.79	0.24	0.35	963.10	2.12	0.05	138.19	0.30	0.25	700.09	1.54	0.02	2.88	0.01	0.02	2.90	0.01
0.09	6.94	0.02	0.40	2.93	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	1,039.74	2.29	2.24	132.36	0.29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	116.07	0.26	2.24	17.35	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.07	1,136.83	2.51	2.78	209.61	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	410.71	0.91	2.78	64.90	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	350.25	0.77	0.35	8.81	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	248.06	0.55	0.70	10.40	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	52.71	0.12	0.68	28.63	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	438.15	0.97	0.40	24.82	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	245.51	0.54	0.40	17.32	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	159.89	0.35	0.02	1.41	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	1,599.61	3.53	0.40	67.66	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	229.91	0.51	0.40	14.58	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.05	4.61	0.01	0.61	2.65	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.32	240.67	0.53	-	-	-	0.71	110.80	0.24	0.05	8.00	0.02	0.26	40.47	0.09	0.02	0.17	0.00	0.02	0.17	0.00
0.02	51.53	0.11	-	-	-	1.50	121.63	0.27	0.11	8.69	0.02	1.03	83.76	0.18	0.03	0.53	0.00	0.02	0.48	0.00
0.02	51.35	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		*153.98*			*2.69*			*79.41*			*48.37*			*194.98*			*26.97*			*24.84*
Total		**531.24**																		

NOx									CO									SOx								
NOx_RUNEX			NOx_IDLEX			NOx_STREX			CO_RUNEX			CO_IDLEX			CO_STREX			SOx_RUNEX			SOx_IDLEX			SOx_STREX		
g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb
1.19	1,517.35	3.35	1.72	43.61	0.10	-	-	-	0.24	309.24	0.68	0.12	2.99	0.01	-	-	-	0.01	14.04	0.03	0.01	0.15	0.00	-	-	-
0.05	65,945.81	145.39	-	-	-	0.03	11,713.35	25.82	0.40	581,337.14	1,281.63	-	-	-	0.88	297,019.92	654.82	0.00	2,861.33	6.31	-	-	-	0.00	145.00	0.32
0.01	157.50	0.35	-	-	-	-	-	-	0.14	2,889.55	6.37	-	-	-	-	-	-	0.00	37.68	0.08	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.02	2,273.68	5.01	-	-	-	0.01	311.32	0.69	0.28	28,384.96	62.58	-	-	-	0.38	8,921.92	19.67	0.00	213.92	0.47	-	-	-	0.00	10.68	0.02
0.03	1.91	0.00	-	-	-	-	-	-	0.16	8.90	0.02	-	-	-	-	-	-	0.00	0.11	0.00	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.02	11,707.40	25.81	-	-	-	0.02	1,724.09	3.80	0.34	167,522.47	369.32	-	-	-	0.44	49,231.08	108.54	0.00	1,209.35	2.67	-	-	-	0.00	57.58	0.13
0.03	31.70	0.07	-	-	-	-	-	-	0.15	160.46	0.35	-	-	-	-	-	-	0.00	2.51	0.01	-	-	-	-	-	-
0.04	349.35	0.77	0.02	6.25	0.01	0.61	3,033.20	6.69	0.15	1,413.14	3.12	3.15	1,053.33	2.32	2.46	12,262.48	27.03	0.01	72.82	0.16	0.00	0.37	0.00	0.00	2.97	0.01
0.09	1,957.97	4.32	0.84	658.56	1.45	-	-	-	0.58	12,210.97	26.92	0.91	710.30	1.57	-	-	-	0.00	102.38	0.23	0.00	0.91	0.00	-	-	-
0.04	151.44	0.33	0.02	2.69	0.01	0.52	1,156.50	2.55	0.15	640.02	1.41	3.15	467.74	1.03	2.46	5,445.27	12.00	0.01	37.47	0.08	0.00	0.19	0.00	0.00	1.51	0.00
0.07	783.22	1.73	0.78	287.17	0.63	-	-	-	0.55	5,782.61	12.75	0.91	333.36	0.73	-	-	-	0.01	57.91	0.13	0.00	0.69	0.00	-	-	-
1.14	17,599.34	38.80	-	-	-	0.31	1,707.73	3.76	17.87	276,226.95	608.98	-	-	-	10.01	54,963.56	121.17	0.00	34.26	0.08	-	-	-	0.00	3.45	0.01
0.03	6,633.91	14.63	-	-	-	0.02	1,098.02	2.42	0.37	96,217.90	212.12	-	-	-	0.50	30,905.18	68.13	0.00	832.43	1.84	-	-	-	0.00	41.27	0.09
0.01	64.90	0.14	-	-	-	-	-	-	0.16	1,208.30	2.66	-	-	-	-	-	-	0.00	22.59	0.05	-	-	-	-	-	-
0.10	150.42	0.33	-	-	-	0.65	13.73	0.03	0.17	247.67	0.55	-	-	-	3.82	81.16	0.18	0.01	17.74	0.04	-	-	-	0.00	0.02	0.00
2.46	1,013.60	2.23	-	-	-	-	-	-	0.21	86.56	0.19	-	-	-	-	-	-	0.01	3.96	0.01	-	-	-	-	-	-
1.63	2,124.55	4.68	26.17	281.16	0.62	-	-	-	0.48	623.06	1.37	3.17	34.08	0.08	-	-	-	0.02	19.97	0.04	0.10	1.04	0.00	-	-	-
0.09	274.99	0.61	0.05	3.88	0.01	0.62	902.90	1.99	0.18	566.96	1.25	4.85	354.89	0.78	3.85	5,640.68	12.44	0.01	37.38	0.08	0.00	0.26	0.00	0.00	1.14	0.00
4.04	5,431.34	11.97	-	-	-	-	-	-	1.16	1,563.62	3.45	-	-	-	-	-	-	0.02	23.27	0.05	-	-	-	-	-	-
0.09	86.88	0.19	0.74	18.34	0.04	0.87	85.63	0.19	0.21	192.18	0.42	68.01	1,681.44	3.71	11.70	1,157.44	2.55	0.01	5.82	0.01	0.02	0.61	0.00	0.00	0.14	0.00
1.36	1,789.57	3.95	9.34	388.20	0.86	-	-	-	0.31	403.49	0.89	0.64	26.64	0.06	-	-	-	0.01	15.51	0.03	0.03	1.34	0.00	-	-	-
1.35	148.15	0.33	1.72	13.65	0.03	-	-	-	0.26	29.01	0.06	0.12	0.94	0.00	-	-	-	0.01	1.21	0.00	0.01	0.05	0.00	-	-	-
1.04	92.01	0.20	1.72	3.58	0.01	-	-	-	0.22	19.57	0.04	0.12	0.25	0.00	-	-	-	0.01	0.95	0.00	0.01	0.01	0.00	-	-	-
0.96	261.03	0.58	1.72	9.10	0.02	-	-	-	0.21	56.99	0.13	0.12	0.62	0.00	-	-	-	0.01	2.99	0.01	0.01	0.03	0.00	-	-	-
1.22	2,521.97	5.56	1.72	49.03	0.11	-	-	-	0.25	510.58	1.13	0.12	3.36	0.01	-	-	-	0.01	22.72	0.05	0.01	0.17	0.00	-	-	-
1.09	6,047.60	13.33	1.72	224.63	0.50	-	-	-	0.23	1,267.37	2.79	0.12	15.42	0.03	-	-	-	0.01	61.04	0.13	0.01	0.78	0.00	-	-	-
1.14	13,813.26	30.45	1.72	440.67	0.97	-	-	-	0.24	2,858.50	6.30	0.12	30.24	0.07	-	-	-	0.01	131.11	0.29	0.01	1.52	0.00	-	-	-
1.09	33,210.60	73.22	1.72	1,144.72	2.52	-	-	-	0.23	6,975.21	15.38	0.12	78.56	0.17	-	-	-	0.01	337.51	0.74	0.01	3.96	0.01	-	-	-
1.04	52.72	0.12	1.72	2.05	0.00	-	-	-	0.22	11.21	0.02	0.12	0.14	0.00	-	-	-	0.01	0.55	0.00	0.01	0.01	0.00	-	-	-
0.96	149.56	0.33	1.72	5.22	0.01	-	-	-	0.21	32.65	0.07	0.12	0.36	0.00	-	-	-	0.01	1.71	0.00	0.01	0.02	0.00	-	-	-
0.79	992.95	2.19	1.76	141.17	0.31	-	-	-	0.18	231.51	0.51	0.12	9.68	0.02	-	-	-	0.01	13.88	0.03	0.01	0.48	0.00	-	-	-
0.70	126.75	0.28	1.72	17.66	0.04	-	-	-	0.17	31.23	0.07	0.12	1.21	0.00	-	-	-	0.01	1.99	0.00	0.01	0.06	0.00	-	-	-
0.09	509.15	1.12	0.07	10.05	0.02	0.71	1,975.55	4.36	0.19	1,060.42	2.34	12.07	1,668.35	3.68	5.10	14,112.43	31.11	0.01	68.50	0.15	0.01	0.72	0.00	0.00	3.21	0.01
1.69	137.87	0.30	12.31	89.50	0.20	-	-	-	0.50	40.97	0.09	1.49	10.85	0.02	-	-	-	0.01	1.16	0.00	0.04	0.32	0.00	-	-	-
1.33	17,915.06	39.50	68.34	4,036.95	8.90	-	-	-	0.46	6,139.40	13.54	8.28	489.30	1.08	-	-	-	0.01	184.09	0.41	0.23	13.86	0.03	-	-	-
1.38	2,021.54	4.46	68.34	529.25	1.17	-	-	-	0.47	685.35	1.51	8.28	64.15	0.14	-	-	-	0.01	20.37	0.04	0.23	1.82	0.00	-	-	-
1.11	18,584.85	40.97	84.82	6,393.27	14.09	-	-	-	0.40	6,712.72	14.80	10.28	774.89	1.71	-	-	-	0.01	229.18	0.51	0.29	22.13	0.05	-	-	-
1.33	7,076.89	15.60	84.82	1,979.56	4.36	-	-	-	0.46	2,425.12	5.35	10.28	239.93	0.53	-	-	-	0.01	72.72	0.16	0.29	6.80	0.01	-	-	-
1.49	6,212.61	13.70	10.75	268.69	0.59	-	-	-	0.49	2,068.14	4.56	1.30	32.57	0.07	-	-	-	0.01	58.22	0.13	0.04	0.92	0.00	-	-	-
1.48	4,393.50	9.69	21.41	317.11	0.70	-	-	-	0.49	1,464.72	3.23	2.60	38.44	0.08	-	-	-	0.01	41.42	0.09	0.07	1.09	0.00	-	-	-
1.05	952.74	2.10	21.39	903.41	1.99	-	-	-	0.32	291.19	0.64	2.55	107.84	0.24	-	-	-	0.01	12.79	0.03	0.06	2.74	0.01	-	-	-
1.04	7,052.12	15.55	12.31	757.14	1.67	-	-	-	0.38	2,587.18	5.70	1.49	91.77	0.20	-	-	-	0.01	94.52	0.21	0.04	2.61	0.01	-	-	-
1.05	3,959.85	8.73	12.31	528.32	1.16	-	-	-	0.38	1,449.59	3.20	1.49	64.03	0.14	-	-	-	0.01	52.72	0.12	0.04	1.82	0.00	-	-	-
0.45	1,265.29	2.79	19.17	1,247.63	2.75	-	-	-	14.59	40,950.37	90.28	2.32	150.78	0.33	-	-	-	0.00	0.82	0.00	0.00	0.04	0.00	-	-	-
1.35	27,718.31	61.11	12.31	2,063.63	4.55	-	-	-	0.46	9,445.31	20.82	1.49	250.12	0.55	-	-	-	0.01	279.48	0.62	0.04	7.08	0.02	-	-	-
1.44	4,047.34	8.92	12.31	444.64	0.98	-	-	-	0.48	1,357.55	2.99	1.49	53.89	0.12	-	-	-	0.01	39.27	0.09	0.04	1.53	0.00	-	-	-
0.68	62.88	0.14	18.61	80.83	0.18	-	-	-	0.29	27.25	0.06	2.26	9.80	0.02	-	-	-	0.01	1.29	0.00	0.06	0.28	0.00	-	-	-
3.05	2,314.62	5.10	-	-	-	3.25	506.37	1.12	29.84	22,679.04	50.00	-	-	-	42.04	6,541.64	14.42	0.02	12.54	0.03	-	-	-	0.00	0.30	0.00
0.38	850.44	1.87	-	-	-	2.62	212.30	0.47	0.44	1,000.65	2.21	-	-	-	15.31	1,239.91	2.73	0.02	36.26	0.08	-	-	-	0.00	0.26	0.00
0.50	1,107.26	2.44	-	-	-	-	-	-	7.64	16,964.74	37.40	-	-	-	-	-	-	0.00	0.11	0.00	-	-	-	-	-	-
		625.33			*51.57*			*53.88*			*2,882.26*			*19.52*			*1,074.80*			*16.32*			*0.17*			*0.59*
		730.78									**3,976.58**									**17.08**						

PM10																PM2.5																	
PM10_RUNEX			PM10_IDLEX			PM10_STREX			PM10_PMTW			PM10_PMBW			PM2_5_RUNEX			PM2_5_IDLEX			PM2_5_STREX			PM2_5_PMTW			PM2_5_PMBW					
g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/mi	g	lb	g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/mi	g	lb			
0.00	4.14	0.01	0.00	0.00	0.00	-	-	-	0.01	15.24	0.03	0.13	165.56	0.36	0.00	3.96	0.01	0.00	0.00	0.00	-	-	-	0.00	3.81	0.01	0.06	70.95	0.16			
0.00	1,008.37	2.22	-	-	-	0.00	318.00	0.70	0.01	11,523.15	25.40	0.04	52,934.45	116.70	0.00	927.16	2.04	-	-	-	0.00	292.39	0.64	0.00	2,880.79	6.35	0.02	22,686.19	50.01			
0.00	13.61	0.03	-	-	-	-	-	-	0.01	160.82	0.35	0.04	738.77	1.63	0.00	13.02	0.03	-	-	-	-	-	-	0.00	40.20	0.09	0.02	316.61	0.70			
-	-	-	-	-	-	-	-	-	0.01	2,138.58	4.71	0.04	9,824.09	21.66	-	-	-	-	-	-	-	-	-	0.00	534.64	1.18	0.02	4,210.32	9.28			
0.00	73.60	0.16	-	-	-	0.00	23.63	0.05	0.01	807.38	1.78	0.04	3,708.89	8.18	0.00	67.67	0.15	-	-	-	0.00	21.73	0.05	0.00	201.84	0.44	0.02	1,589.53	3.50			
0.00	0.24	0.00	-	-	-	-	-	-	0.01	0.45	0.00	0.04	2.06	0.00	0.00	0.23	0.00	-	-	-	-	-	-	0.00	0.11	0.00	0.02	0.88	0.00			
-	-	-	-	-	-	-	-	-	0.01	0.36	0.00	0.04	1.66	0.00	-	-	-	-	-	-	-	-	-	0.00	0.09	0.00	0.02	0.71	0.00			
0.00	345.28	0.76	-	-	-	0.00	104.36	0.23	0.01	3,941.00	8.69	0.04	18,103.95	39.91	0.00	317.47	0.70	-	-	-	0.00	95.95	0.21	0.00	985.25	2.17	0.02	7,758.84	17.11			
0.00	4.39	0.01	-	-	-	-	-	-	0.01	8.68	0.02	0.04	39.89	0.09	0.00	4.20	0.01	-	-	-	-	-	-	0.00	2.17	0.00	0.02	17.10	0.04			
0.00	20.63	0.05	-	-	-	0.00	5.80	0.01	0.01	74.79	0.16	0.08	714.60	1.58	0.00	18.97	0.04	-	-	-	0.00	5.33	0.01	0.00	18.70	0.04	0.03	306.26	0.68			
0.01	151.25	0.33	0.01	9.26	0.02	-	-	-	0.01	251.67	0.55	0.08	1,603.12	3.53	0.01	144.70	0.32	0.01	8.86	0.02	-	-	-	0.00	62.92	0.14	0.03	687.05	1.51			
0.00	9.55	0.02	-	-	-	0.00	2.63	0.01	0.01	34.33	0.08	0.09	382.69	0.84	0.00	8.78	0.02	-	-	-	0.00	2.42	0.01	0.00	8.58	0.02	0.04	164.01	0.36			
0.01	92.60	0.20	0.02	5.62	0.01	-	-	-	0.01	127.17	0.28	0.09	945.08	2.08	0.01	88.60	0.20	0.01	5.37	0.01	-	-	-	0.00	31.79	0.07	0.04	405.03	0.89			
0.00	38.54	0.08	-	-	-	0.00	18.30	0.04	0.00	61.83	0.14	0.01	181.79	0.40	0.00	35.93	0.08	-	-	-	0.00	17.06	0.04	0.00	15.46	0.03	0.01	77.91	0.17			
0.00	188.93	0.42	-	-	-	0.00	60.06	0.13	0.01	2,098.67	4.63	0.04	9,640.75	21.25	0.00	173.71	0.38	-	-	-	0.00	55.22	0.12	0.00	524.67	1.16	0.02	4,131.75	9.11			
0.00	5.82	0.01	-	-	-	-	-	-	0.01	60.25	0.13	0.04	276.77	0.61	0.00	5.57	0.01	-	-	-	-	-	-	0.00	15.06	0.03	0.02	118.62	0.26			
0.00	2.07	0.00	-	-	-	0.00	0.02	0.00	0.01	17.57	0.04	0.13	190.88	0.42	0.00	1.90	0.00	-	-	-	0.00	0.02	0.00	0.00	4.39	0.01	0.06	81.81	0.18			
0.02	7.05	0.02	-	-	-	-	-	-	0.02	6.58	0.01	0.13	53.60	0.12	0.02	6.75	0.01	-	-	-	-	-	-	0.00	1.64	0.00	0.06	22.97	0.05			
0.00	6.45	0.01	0.00	0.03	0.00	-	-	-	0.01	15.63	0.03	0.13	169.77	0.37	0.00	6.17	0.01	0.00	0.03	0.00	-	-	-	0.00	3.91	0.01	0.06	72.76	0.16			
0.00	4.40	0.01	-	-	-	0.00	1.69	0.00	0.01	37.07	0.08	0.13	402.64	0.89	0.00	4.04	0.01	-	-	-	0.00	1.55	0.00	0.00	9.27	0.02	0.06	172.56	0.38			
0.01	8.13	0.02	-	-	-	-	-	-	-	-	-	-	-	-	0.01	7.77	0.02	-	-	-	-	-	-	-	-	-	-	-	-			
0.00	1.51	0.00	-	-	-	0.00	0.26	0.00	0.01	7.42	0.02	0.74	691.16	1.52	0.00	1.38	0.00	-	-	-	0.00	0.24	0.00	0.00	1.86	0.00	0.32	296.21	0.65			
0.00	4.20	0.01	0.00	0.03	0.00	-	-	-	0.01	15.80	0.03	0.74	980.40	2.16	0.00	4.02	0.01	0.00	0.03	0.00	-	-	-	0.00	3.95	0.01	0.32	420.17	0.93			
0.00	0.40	0.00	0.00	0.00	0.00	-	-	-	0.01	1.32	0.00	0.13	14.29	0.03	0.00	0.38	0.00	0.00	0.00	0.00	-	-	-	0.00	0.33	0.00	0.06	6.12	0.01			
0.00	0.25	0.00	0.00	0.00	0.00	-	-	-	0.01	1.06	0.00	0.13	11.49	0.03	0.00	0.24	0.00	0.00	0.00	0.00	-	-	-	0.00	0.26	0.00	0.06	4.92	0.01			
0.00	0.73	0.00	0.00	0.00	0.00	-	-	-	0.01	3.25	0.01	0.13	35.26	0.08	0.00	0.69	0.00	0.00	0.00	0.00	-	-	-	0.00	0.81	0.00	0.06	15.11	0.03			
0.00	6.88	0.02	0.00	0.00	0.00	-	-	-	0.01	24.71	0.05	0.13	268.39	0.59	0.00	6.59	0.01	0.00	0.00	0.00	-	-	-	0.00	6.18	0.01	0.06	115.02	0.25			
0.00	16.64	0.04	0.00	0.02	0.00	-	-	-	0.01	66.38	0.15	0.13	720.99	1.59	0.00	15.92	0.04	0.00	0.02	0.00	-	-	-	0.00	16.59	0.04	0.06	309.00	0.68			
0.00	37.89	0.08	0.00	0.03	0.00	-	-	-	0.01	145.58	0.32	0.13	1,581.28	3.49	0.00	36.25	0.08	0.00	0.03	0.00	-	-	-	0.00	36.40	0.08	0.06	677.69	1.49			
0.00	91.42	0.20	0.00	0.09	0.00	-	-	-	0.01	367.08	0.81	0.13	3,987.12	8.79	0.00	87.46	0.19	0.00	0.08	0.00	-	-	-	0.00	91.77	0.20	0.06	1,708.77	3.77			
0.00	0.15	0.00	0.00	0.00	0.00	-	-	-	0.01	0.61	0.00	0.13	6.58	0.01	0.00	0.14	0.00	0.00	0.00	0.00	-	-	-	0.00	0.15	0.00	0.06	2.82	0.01			
0.00	0.42	0.00	0.00	0.00	0.00	-	-	-	0.01	1.86	0.00	0.13	20.20	0.04	0.00	0.40	0.00	0.00	0.00	0.00	-	-	-	0.00	0.46	0.00	0.06	8.66	0.02			
0.00	2.85	0.01	0.00	0.01	0.00	-	-	-	0.01	15.09	0.03	0.13	163.91	0.36	0.00	2.73	0.01	0.00	0.01	0.00	-	-	-	0.00	3.77	0.01	0.06	70.25	0.15			
0.00	0.36	0.00	0.00	0.00	0.00	-	-	-	0.01	2.17	0.00	0.13	23.56	0.05	0.00	0.35	0.00	0.00	0.00	0.00	-	-	-	0.00	0.54	0.00	0.06	10.10	0.02			
0.00	8.08	0.02	-	-	-	0.00	4.35	0.01	0.01	68.01	0.15	0.13	738.66	1.63	0.00	7.43	0.02	-	-	-	0.00	4.00	0.01	0.00	17.00	0.04	0.06	316.57	0.70			
0.01	0.50	0.00	0.00	0.01	0.00	-	-	-	0.04	2.94	0.01	0.06	5.03	0.01	0.01	0.48	0.00	0.00	0.01	0.00	-	-	-	0.01	0.73	0.00	0.03	2.16	0.00			
0.01	73.93	0.16	0.01	0.39	0.00	-	-	-	0.04	485.26	1.07	0.06	832.23	1.83	0.01	70.73	0.16	0.01	0.37	0.00	-	-	-	0.01	121.32	0.27	0.03	356.67	0.79			
0.01	8.32	0.02	0.01	0.05	0.00	-	-	-	0.04	52.59	0.12	0.06	90.19	0.20	0.01	7.96	0.02	0.01	0.05	0.00	-	-	-	0.01	13.15	0.03	0.03	38.65	0.09			
0.00	77.61	0.17	0.01	0.62	0.00	-	-	-	0.04	601.73	1.33	0.06	1,031.96	2.28	0.00	74.26	0.16	0.01	0.59	0.00	-	-	-	0.01	150.43	0.33	0.03	442.27	0.98			
0.01	29.20	0.06	0.01	0.19	0.00	-	-	-	0.04	191.68	0.42	0.06	328.73	0.72	0.01	27.94	0.06	0.01	0.18	0.00	-	-	-	0.01	47.92	0.11	0.03	140.88	0.31			
0.01	25.49	0.06	0.00	0.03	0.00	-	-	-	0.04	150.51	0.33	0.06	258.13	0.57	0.01	24.39	0.05	0.00	0.02	0.00	-	-	-	0.01	37.63	0.08	0.03	110.63	0.24			
0.01	18.03	0.04	0.00	0.03	0.00	-	-	-	0.04	107.07	0.24	0.06	183.62	0.40	0.01	17.25	0.04	0.00	0.03	0.00	-	-	-	0.01	26.77	0.06	0.03	78.69	0.17			
0.00	4.22	0.01	0.00	0.15	0.00	-	-	-	0.04	32.64	0.07	0.06	55.98	0.12	0.00	4.04	0.01	0.00	0.14	0.00	-	-	-	0.01	8.16	0.02	0.03	23.99	0.05			
0.00	29.35	0.06	0.00	0.07	0.00	-	-	-	0.04	243.91	0.54	0.06	418.31	0.92	0.00	28.08	0.06	0.00	0.07	0.00	-	-	-	0.01	60.98	0.13	0.03	179.28	0.40			
0.00	16.48	0.04	0.00	0.05	0.00	-	-	-	0.04	136.03	0.30	0.06	233.30	0.51	0.00	15.77	0.03	0.00	0.05	0.00	-	-	-	0.01	34.01	0.07	0.03	99.98	0.22			
0.00	8.65	0.02	0.00	0.14	0.00	-	-	-	0.04	101.06	0.22	0.06	173.33	0.38	0.00	8.27	0.02	0.00	0.13	0.00	-	-	-	0.01	25.27	0.06	0.03	74.28	0.16			
0.01	114.16	0.25	0.00	0.20	0.00	-	-	-	0.04	737.13	1.63	0.06	1,264.19	2.79	0.01	109.22	0.24	0.00	0.19	0.00	-	-	-	0.01	184.28	0.41	0.03	541.79	1.19			
0.01	16.61	0.04	0.00	0.04	0.00	-	-	-	0.04	101.42	0.22	0.06	173.94	0.38	0.01	15.89	0.04	0.00	0.04	0.00	-	-	-	0.01	25.36	0.06	0.03	74.55	0.16			
0.00	0.27	0.00	0.00	0.01	0.00	-	-	-	0.04	3.34	0.01	0.06	5.73	0.01	0.00	0.26	0.00	0.00	0.01	0.00	-	-	-	0.01	0.84	0.00	0.03	2.46	0.01			
0.00	0.88	0.00	-	-	-	0.00	0.25	0.00	0.02	15.20	0.03	0.06	46.92	0.10	0.00	0.81	0.00	-	-	-	0.00	0.23	0.00	0.01	3.80	0.01	0.03	20.11	0.04			
0.00	5.34	0.01	-	-	-	0.00	0.28	0.00	0.01	27.06	0.06	0.13	293.92	0.65	0.00	4.91	0.01	-	-	-	0.00	0.26	0.00	0.00	6.76	0.01	0.06	125.96	0.28			
0.00	2.48	0.01	-	-	-	-	-	-	0.01	26.65	0.06	0.84	1,869.56	4.12	0.00	2.37	0.01	-	-	-	-	-	-	0.00	6.66	0.01	0.36	801.24	1.77			
		5.71			*0.04*			*1.19*			*55.38*			*257.04*			*5.32*			*0.04*			*1.09*			*13.84*			*110.16*			
		319.34															**130.45**															

KMCPU - Proposed Plan (Proposed New Development)

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	23,294.00	Dwelling Unit	613.00	23,294,000.00	66621
Junior College (2Yr)	6.10	1000sqft	0.14	6,097.00	0
High School	1,048.48	1000sqft	24.07	1,048,475.00	0
General Office Building	9,059.45	1000sqft	207.98	9,059,448.00	0
Strip Mall	4,852.94	1000sqft	111.41	4,852,943.00	0
Regional Shopping Center	285.11	1000sqft	6.55	285,108.00	0
Industrial Park	7,224.58	1000sqft	165.85	7,224,579.00	0
City Park	1.87	Acre	1.87	81,457.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
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

KMCPU - Proposed Plan (Proposed New Development) - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Not modeling for construction

Vehicle Trips - Mobile emissions calculated outside CalEEMod using EMFAC

Woodstoves - No woodstoves
Fireplaces modeled as natural gas only (90% NG, 10% no fireplace)

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	0.00
tblConstructionPhase	PhaseEndDate	2/21/2819	12/23/2776
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	12,811.70	20,965.00
tblFireplaces	NumberNoFireplace	2,329.40	2,329.00
tblFireplaces	NumberWood	8,152.90	0.00
tblLandUse	LandUseSquareFeet	1,048,470.00	1,048,475.00
tblLandUse	LandUseSquareFeet	9,059,450.00	9,059,448.00
tblLandUse	LandUseSquareFeet	4,852,940.00	4,852,943.00
tblLandUse	LandUseSquareFeet	7,224,580.00	7,224,579.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	42.04	0.00

tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	6.83	0.00
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWoodstoves	NumberCatalytic	1,164.70	0.00
tblWoodstoves	NumberNoncatalytic	1,164.70	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2776	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2776	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**7.4300e-003**	**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**

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	1,420.0057	369.8778	2,063.6109	2.3215		38.7832	38.7832		38.7832	38.7832	0.0000	447,430.0026	447,430.0026	11.8157	8.1394	450,150.9226
Energy	15.3553	136.8045	96.8072	0.8376		10.6091	10.6091		10.6091	10.6091		167,511.9953	167,511.9953	3.2107	3.0711	168,507.4353
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1,435.3609**	**506.6823**	**2,160.4180**	**3.1590**	**0.0000**	**49.3923**	**49.3923**	**0.0000**	**49.3923**	**49.3923**	**0.0000**	**614,941.9979**	**614,941.9979**	**15.0264**	**11.2104**	**618,658.3580**

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	1,420.0057	369.8778	2,063.6109	2.3215		38.7832	38.7832		38.7832	38.7832	0.0000	447,430.0026	447,430.0026	11.8157	8.1394	450,150.9226
Energy	15.3553	136.8045	96.8072	0.8376		10.6091	10.6091		10.6091	10.6091		167,511.9953	167,511.9953	3.2107	3.0711	168,507.4353
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1,435.3609**	**506.6823**	**2,160.4180**	**3.1590**	**0.0000**	**49.3923**	**49.3923**	**0.0000**	**49.3923**	**49.3923**	**0.0000**	**614,941.9979**	**614,941.9979**	**15.0264**	**11.2104**	**618,658.3580**

	ROG	NOx	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	Architectural Coating	Architectural Coating	12/24/2776	12/23/2776	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 47,170,350; Residential Outdoor: 15,723,450; Non-Residential Indoor: 33,714,975; Non-Residential Outdoor: 11,238,325; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	4,965.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2776

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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 Architectural Coating - 2776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	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 Off-Site

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

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
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Junior College (2Yr)	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Strip Mall	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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
City Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
General Office Building	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
High School	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Industrial Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Junior College (2Yr)	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Regional Shopping Center	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Strip Mall	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

KMCPU - Proposed Plan (Proposed New Development) - 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	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	15.3553	136.8045	96.8072	0.8376		10.6091	10.6091		10.6091	10.6091		167,511.9953	167,511.9953	3.2107	3.0711	168,507.4353
NaturalGas Unmitigated	15.3553	136.8045	96.8072	0.8376		10.6091	10.6091		10.6091	10.6091		167,511.9953	167,511.9953	3.2107	3.0711	168,507.4353

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					
Apartments Mid Rise	474096	5.1128	43.6912	18.5920	0.2789		3.5325	3.5325		3.5325	3.5325		55,776.0095	55,776.0095	1.0690	1.0226	56,107.4585
City 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
General Office Building	501124	5.4043	49.1298	41.2690	0.2948		3.7339	3.7339		3.7339	3.7339		58,955.7631	58,955.7631	1.1300	1.0809	59,306.1078
High School	17005.4	0.1834	1.6672	1.4004	0.0100		0.1267	0.1267		0.1267	0.1267		2,000.6356	2,000.6356	0.0384	0.0367	2,012.5244
Industrial Park	399628	4.3097	39.1792	32.9106	0.2351		2.9776	2.9776		2.9776	2.9776		47,015.0685	47,015.0685	0.9011	0.8619	47,294.4555
Junior College (2Yr)	607.027	6.5500e-003	0.0595	0.0500	3.6000e-004		4.5200e-003	4.5200e-003		4.5200e-003	4.5200e-003		71.4150	71.4150	1.3700e-003	1.3100e-003	71.8394
Regional Shopping Center	1741.89	0.0188	0.1708	0.1435	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.9286	204.9286	3.9300e-003	3.7600e-003	206.1463
Strip Mall	29649.5	0.3198	2.9068	2.4417	0.0174		0.2209	0.2209		0.2209	0.2209		3,488.1750	3,488.1750	0.0669	0.0640	3,508.9035
Total		**15.3553**	**136.8045**	**96.8072**	**0.8376**		**10.6091**	**10.6091**		**10.6091**	**10.6091**		**167,511.9953**	**167,511.9953**	**3.2107**	**3.0711**	**168,507.4353**

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					
Apartments Mid Rise	474.096	5.1128	43.6912	18.5920	0.2789		3.5325	3.5325		3.5325	3.5325		55,776.0095	55,776.0095	1.0690	1.0226	56,107.4585
City 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
General Office Building	501.124	5.4043	49.1298	41.2690	0.2948		3.7339	3.7339		3.7339	3.7339		58,955.7631	58,955.7631	1.1300	1.0809	59,306.1078
High School	17.0054	0.1834	1.6672	1.4004	0.0100		0.1267	0.1267		0.1267	0.1267		2,000.6356	2,000.6356	0.0384	0.0367	2,012.5244
Industrial Park	399.628	4.3097	39.1792	32.9106	0.2351		2.9776	2.9776		2.9776	2.9776		47,015.0685	47,015.0685	0.9011	0.8619	47,294.4555
Junior College (2Yr)	0.607027	6.5500e-003	0.0595	0.0500	3.6000e-004		4.5200e-003	4.5200e-003		4.5200e-003	4.5200e-003		71.4150	71.4150	1.3700e-003	1.3100e-003	71.8394
Regional Shopping Center	1.74189	0.0188	0.1708	0.1435	1.0200e-003		0.0130	0.0130		0.0130	0.0130		204.9286	204.9286	3.9300e-003	3.7600e-003	206.1463
Strip Mall	29.6495	0.3198	2.9068	2.4417	0.0174		0.2209	0.2209		0.2209	0.2209		3,488.1750	3,488.1750	0.0669	0.0640	3,508.9035
Total		**15.3553**	**136.8045**	**96.8072**	**0.8376**		**10.6091**	**10.6091**		**10.6091**	**10.6091**		**167,511.9953**	**167,511.9953**	**3.2107**	**3.0711**	**168,507.4353**

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	1,420.0057	369.8778	2,063.6109	2.3215		38.7832	38.7832		38.7832	38.7832	0.0000	447,430.0026	447,430.0026	11.8157	8.1394	450,150.9226
Unmitigated	1,420.0057	369.8778	2,063.6109	2.3215		38.7832	38.7832		38.7832	38.7832	0.0000	447,430.0026	447,430.0026	11.8157	8.1394	450,150.9226

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	342.3776					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	979.4961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	40.6968	347.7724	147.9882	2.2198		28.1178	28.1178		28.1178	28.1178	0.0000	443,964.7059	443,964.7059	8.5093	8.1394	446,602.9662
Landscaping	57.4352	22.1054	1,915.6226	0.1017		10.6654	10.6654		10.6654	10.6654		3,465.2968	3,465.2968	3.3064		3,547.9565
Total	**1,420.0057**	**369.8778**	**2,063.6109**	**2.3215**		**38.7832**	**38.7832**		**38.7832**	**38.7832**	**0.0000**	**447,430.0026**	**447,430.0026**	**11.8157**	**8.1394**	**450,150.9226**

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	342.3776					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	979.4961					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	40.6968	347.7724	147.9882	2.2198		28.1178	28.1178		28.1178	28.1178	0.0000	443,964.7059	443,964.7059	8.5093	8.1394	446,602.9662
Landscaping	57.4352	22.1054	1,915.6226	0.1017		10.6654	10.6654		10.6654	10.6654		3,465.2968	3,465.2968	3.3064		3,547.9565
Total	**1,420.0057**	**369.8778**	**2,063.6109**	**2.3215**		**38.7832**	**38.7832**		**38.7832**	**38.7832**	**0.0000**	**447,430.0026**	**447,430.0026**	**11.8157**	**8.1394**	**450,150.9226**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

KMCPU - Proposed Plan (Existing to Remain)

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	144.00	Dwelling Unit	46.75	259,200.00	412
Apartments Mid Rise	2,388.00	Dwelling Unit	62.84	2,388,000.00	6830
Junior College (2Yr)	3,335.52	1000sqft	76.57	3,335,516.00	0
High School	248.34	1000sqft	5.70	248,339.00	0
General Office Building	11,654.23	1000sqft	267.54	11,654,234.00	0
Strip Mall	7,244.10	1000sqft	166.30	7,244,096.00	0
Regional Shopping Center	571.03	1000sqft	13.11	571,027.00	0
Industrial Park	11,865.17	1000sqft	272.39	11,865,171.00	0
City Park	78.13	Acre	78.13	3,403,342.80	0
Enclosed Parking Structure	145.53	1000sqft	3.34	145,533.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
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

KMCPU - Proposed Plan (Existing to Remain) - San Diego County, Winter

Project Characteristics -

Land Use -

Construction Phase - Not modeling for construction

Vehicle Trips - Mobile emissions modeled outside of CalEEMod using EMFAC

Woodstoves - No woodstoves
Fireplaces modeled as natural gas only (90% NG, 10% no fireplace)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1,100.00	0.00
tblConstructionPhase	PhaseEndDate	11/12/2099	8/25/2095
tblEnergyUse	LightingElect	2.63	2.63
tblEnergyUse	T24E	200.21	200.21
tblEnergyUse	T24E	3.92	3.92
tblEnergyUse	T24E	550.61	550.61
tblEnergyUse	T24NG	4,108.03	4,108.03
tblEnergyUse	T24NG	24,260.55	24,260.55
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	1,313.40	2,149.00
tblFireplaces	NumberGas	79.20	130.00
tblFireplaces	NumberNoFireplace	238.80	239.00
tblFireplaces	NumberNoFireplace	14.40	14.00
tblFireplaces	NumberWood	835.80	0.00
tblFireplaces	NumberWood	50.40	0.00
tblLandUse	LandUseSquareFeet	3,335,520.00	3,335,516.00
tblLandUse	LandUseSquareFeet	11,654,200.00	11,654,234.00
tblLandUse	LandUseSquareFeet	7,244,100.00	7,244,096.00

KMCPU - Proposed Plan (Existing to Remain) - San Diego County, Winter

tblLandUse	LandUseSquareFeet	11,865,200.00	11,865,171.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	6.83	0.00
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	9.52	0.00

tblVehicleTrips	WD_TR	44.32	0.00
tblWoodstoves	NumberCatalytic	119.40	0.00
tblWoodstoves	NumberCatalytic	7.20	0.00
tblWoodstoves	NumberNoncatalytic	119.40	0.00
tblWoodstoves	NumberNoncatalytic	7.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2095	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2095	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.4300e-003**	**0.0000**	**0.0000**	**7.4300e-003**	**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**

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	1,059.5271	40.2372	227.6277	0.2526		4.2276	4.2276		4.2276	4.2276	0.0000	48,645.0018	48,645.0018	1.3028	0.8848	48,941.2397
Energy	21.5793	195.8834	162.6469	1.1771		14.9093	14.9093		14.9093	14.9093		235,410.3227	235,410.3227	4.5120	4.3159	236,809.2485
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1,081.1064**	**236.1206**	**390.2745**	**1.4297**	**0.0000**	**19.1369**	**19.1369**	**0.0000**	**19.1369**	**19.1369**	**0.0000**	**284,055.3245**	**284,055.3245**	**5.8149**	**5.2007**	**285,750.4882**

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	1,059.5271	40.2372	227.6277	0.2526		4.2276	4.2276		4.2276	4.2276	0.0000	48,645.0018	48,645.0018	1.3028	0.8848	48,941.2397
Energy	21.5793	195.8834	162.6469	1.1771		14.9093	14.9093		14.9093	14.9093		235,410.3227	235,410.3227	4.5120	4.3159	236,809.2485
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1,081.1064**	**236.1206**	**390.2745**	**1.4297**	**0.0000**	**19.1369**	**19.1369**	**0.0000**	**19.1369**	**19.1369**	**0.0000**	**284,055.3245**	**284,055.3245**	**5.8149**	**5.2007**	**285,750.4882**

	ROG	NOx	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	Architectural Coating	Architectural Coating	8/26/2095	8/25/2095	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.34

Residential Indoor: 5,360,580; Residential Outdoor: 1,786,860; Non-Residential Indoor: 52,377,575; Non-Residential Outdoor: 17,459,192; Striped Parking Area: 8,732 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	3,196.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2095

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	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 Architectural Coating - 2095

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	0.0000	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 Off-Site

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

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
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Junior College (2Yr)	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	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
Apartments Mid Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
City Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Enclosed Parking Structure	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
General Office Building	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
High School	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Industrial Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Junior College (2Yr)	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Regional Shopping Center	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Single Family Housing	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Strip Mall	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

KMCPU - Proposed Plan (Existing to Remain) - 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	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	21.5793	195.8834	162.6469	1.1771		14.9093	14.9093		14.9093	14.9093		235,410.3227	235,410.3227	4.5120	4.3159	236,809.2485
NaturalGas Unmitigated	21.5793	195.8834	162.6469	1.1771		14.9093	14.9093		14.9093	14.9093		235,410.3227	235,410.3227	4.5120	4.3159	236,809.2485

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					
Apartments Mid Rise	37750.2	0.4071	3.4789	1.4804	0.0222		0.2813	0.2813		0.2813	0.2813		4,441.2041	4,441.2041	0.0851	0.0814	4,467.5960
City 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
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	752257	8.1126	73.7507	61.9506	0.4425		5.6051	5.6051		5.6051	5.6051		88,500.8068	88,500.8068	1.6963	1.6225	89,026.7228
High School	4681.02	0.0505	0.4589	0.3855	2.7500e-003		0.0349	0.0349		0.0349	0.0349		550.7082	550.7082	0.0106	0.0101	553.9808
Industrial Park	765872	8.2594	75.0855	63.0719	0.4505		5.7065	5.7065		5.7065	5.7065		90,102.6362	90,102.6362	1.7270	1.6519	90,638.0711
Junior College (2Yr)	376959	4.0652	36.9568	31.0437	0.2217		2.8087	2.8087		2.8087	2.8087		44,348.1177	44,348.1177	0.8500	0.8131	44,611.6563
Regional Shopping Center	3770.34	0.0407	0.3696	0.3105	2.2200e-003		0.0281	0.0281		0.0281	0.0281		443.5697	443.5697	8.5000e-003	8.1300e-003	446.2056
Single Family Housing	11867	0.1280	1.0936	0.4654	6.9800e-003		0.0884	0.0884		0.0884	0.0884		1,396.1176	1,396.1176	0.0268	0.0256	1,404.4140
Strip Mall	47830.9	0.5158	4.6893	3.9390	0.0281		0.3564	0.3564		0.3564	0.3564		5,627.1624	5,627.1624	0.1079	0.1032	5,660.6018
Total		**21.5793**	**195.8834**	**162.6469**	**1.1771**		**14.9093**	**14.9093**		**14.9093**	**14.9093**		**235,410.3227**	**235,410.3227**	**4.5120**	**4.3159**	**236,809.2485**

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					
Apartments Mid Rise	37.7502	0.4071	3.4789	1.4804	0.0222		0.2813	0.2813		0.2813	0.2813		4,441.2041	4,441.2041	0.0851	0.0814	4,467.5960
City 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
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	752.257	8.1126	73.7507	61.9506	0.4425		5.6051	5.6051		5.6051	5.6051		88,500.8068	88,500.8068	1.6963	1.6225	89,026.7228
High School	4.68102	0.0505	0.4589	0.3855	2.7500e-003		0.0349	0.0349		0.0349	0.0349		550.7082	550.7082	0.0106	0.0101	553.9808
Industrial Park	765.872	8.2594	75.0855	63.0719	0.4505		5.7065	5.7065		5.7065	5.7065		90,102.6362	90,102.6362	1.7270	1.6519	90,638.0711
Junior College (2Yr)	376.959	4.0652	36.9568	31.0437	0.2217		2.8087	2.8087		2.8087	2.8087		44,348.1177	44,348.1177	0.8500	0.8131	44,611.6563
Regional Shopping Center	3.77034	0.0407	0.3696	0.3105	2.2200e-003		0.0281	0.0281		0.0281	0.0281		443.5697	443.5697	8.5000e-003	8.1300e-003	446.2056
Single Family Housing	11.867	0.1280	1.0936	0.4654	6.9800e-003		0.0884	0.0884		0.0884	0.0884		1,396.1176	1,396.1176	0.0268	0.0256	1,404.4140
Strip Mall	47.8309	0.5158	4.6893	3.9390	0.0281		0.3564	0.3564		0.3564	0.3564		5,627.1624	5,627.1624	0.1079	0.1032	5,660.6018
Total		**21.5793**	**195.8834**	**162.6469**	**1.1771**		**14.9093**	**14.9093**		**14.9093**	**14.9093**		**235,410.3227**	**235,410.3227**	**4.5120**	**4.3159**	**236,809.2485**

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	1,059.5271	40.2372	227.6277	0.2526		4.2276	4.2276		4.2276	4.2276	0.0000	48,645.0018	48,645.0018	1.3028	0.8848	48,941.2397
Unmitigated	1,059.5271	40.2372	227.6277	0.2526		4.2276	4.2276		4.2276	4.2276	0.0000	48,645.0018	48,645.0018	1.3028	0.8848	48,941.2397

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	244.4262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	804.1304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.4239	37.8046	16.0871	0.2413		3.0565	3.0565		3.0565	3.0565	0.0000	48,261.1765	48,261.1765	0.9250	0.8848	48,547.9685
Landscaping	6.5466	2.4326	211.5406	0.0113		1.1711	1.1711		1.1711	1.1711		383.8254	383.8254	0.3778		393.2712
Total	**1,059.5271**	**40.2372**	**227.6277**	**0.2526**		**4.2276**	**4.2276**		**4.2276**	**4.2276**	**0.0000**	**48,645.0018**	**48,645.0018**	**1.3028**	**0.8848**	**48,941.2397**

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	244.4262					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	804.1304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.4239	37.8046	16.0871	0.2413		3.0565	3.0565		3.0565	3.0565	0.0000	48,261.1765	48,261.1765	0.9250	0.8848	48,547.9685
Landscaping	6.5466	2.4326	211.5406	0.0113		1.1711	1.1711		1.1711	1.1711		383.8254	383.8254	0.3778		393.2712
Total	**1,059.5271**	**40.2372**	**227.6277**	**0.2526**		**4.2276**	**4.2276**		**4.2276**	**4.2276**	**0.0000**	**48,645.0018**	**48,645.0018**	**1.3028**	**0.8848**	**48,941.2397**

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

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2050
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	VehClass	Fuel	SD Population	% Population	KMCP Population	SD VMT	% VMT	KMCP VMT	SD Trips	% Trips	KMCP Trips
San Diego	All Other Buses	DSL	850	0.02%	36	45,528	0.05%	1,672	-	0.00%	0
San Diego	LDA	GAS	1,793,604	52.20%	75,128	51,627,404	51.27%	1,896,247	11,340,178	53.23%	475,002
San Diego	LDA	DSL	24,990	0.73%	1,047	720,524	0.72%	26,464	158,131	0.74%	6,624
San Diego	LDA	ELEC	330,257	9.61%	13,833	9,581,514	9.52%	351,924	2,095,811	9.84%	87,787
San Diego	LDT1	GAS	128,354	3.74%	5,376	3,617,314	3.59%	132,862	796,424	3.74%	33,360
San Diego	LDT1	DSL	72	0.00%	3	2,013	0.00%	74	444	0.00%	19
San Diego	LDT1	ELEC	57	0.00%	2	1,621	0.00%	60	356	0.00%	15
San Diego	LDT2	GAS	588,068	17.12%	24,632	17,656,932	17.53%	648,530	3,721,796	17.47%	155,894
San Diego	LDT2	DSL	1,295	0.04%	54	38,906	0.04%	1,429	8,200	0.04%	343
San Diego	LHD1	GAS	11,221	0.33%	470	335,072	0.33%	12,307	167,180	0.78%	7,003
San Diego	LHD1	DSL	26,200	0.76%	1,097	751,699	0.75%	27,609	329,564	1.55%	13,804
San Diego	LHD2	GAS	4,979	0.14%	209	153,807	0.15%	5,649	74,185	0.35%	3,107
San Diego	LHD2	DSL	12,296	0.36%	515	379,840	0.38%	13,951	154,671	0.73%	6,479
San Diego	MCY	GAS	92,143	2.68%	3,860	554,061	0.55%	20,350	184,267	0.86%	7,718
San Diego	MDV	GAS	330,565	9.62%	13,846	9,402,705	9.34%	345,356	2,056,216	9.65%	86,128
San Diego	MDV	DSL	9,428	0.27%	395	269,940	0.27%	9,915	58,881	0.28%	2,466
San Diego	MH	GAS	7,123	0.21%	298	52,492	0.05%	1,928	713	0.00%	30
San Diego	MH	DSL	2,005	0.06%	84	14,740	0.01%	541	200	0.00%	8
San Diego	Motor Coach	DSL	361	0.01%	15	46,685	0.05%	1,715	-	0.00%	0
San Diego	OBUS	GAS	2,456	0.07%	103	110,723	0.11%	4,067	49,147	0.23%	2,059
San Diego	PTO	DSL	-	0.00%	0	48,221	0.05%	1,771	-	0.00%	0
San Diego	SBUS	GAS	830	0.02%	35	33,261	0.03%	1,222	3,319	0.02%	139
San Diego	SBUS	DSL	1,395	0.04%	58	47,180	0.05%	1,733	-	0.00%	0
San Diego	T6 Ag	DSL	266	0.01%	11	3,929	0.00%	144	-	0.00%	0
San Diego	T6 CAIRP heavy	DSL	70	0.00%	3	3,158	0.00%	116	-	0.00%	0
San Diego	T6 CAIRP small	DSL	177	0.01%	7	9,695	0.01%	356	-	0.00%	0
San Diego	T6 instate construction heavy	DSL	956	0.03%	40	73,804	0.07%	2,711	-	0.00%	0
San Diego	T6 instate construction small	DSL	4,379	0.13%	183	198,268	0.20%	7,282	-	0.00%	0
San Diego	T6 instate heavy	DSL	8,591	0.25%	360	434,840	0.43%	15,971	-	0.00%	0
San Diego	T6 instate small	DSL	22,317	0.65%	935	1,096,430	1.09%	40,271	-	0.00%	0
San Diego	T6 OOS heavy	DSL	40	0.00%	2	1,810	0.00%	66	-	0.00%	0
San Diego	T6 OOS small	DSL	102	0.00%	4	5,555	0.01%	204	-	0.00%	0
San Diego	T6 Public	DSL	2,697	0.08%	113	45,074	0.04%	1,656	-	0.00%	0
San Diego	T6 utility	DSL	344	0.01%	14	6,478	0.01%	238	-	0.00%	0
San Diego	T6TS	GAS	4,640	0.14%	194	203,127	0.20%	7,461	92,840	0.44%	3,889
San Diego	T7 Ag	DSL	244	0.01%	10	2,922	0.00%	107	-	0.00%	0
San Diego	T7 CAIRP	DSL	1,982	0.06%	83	483,143	0.48%	17,746	-	0.00%	0
San Diego	T7 CAIRP construction	DSL	260	0.01%	11	52,356	0.05%	1,923	-	0.00%	0
San Diego	T7 NNOOS	DSL	2,529	0.07%	106	599,098	0.59%	22,005	-	0.00%	0
San Diego	T7 NOOS	DSL	783	0.02%	33	190,841	0.19%	7,009	-	0.00%	0
San Diego	T7 other port	DSL	838	0.02%	35	149,856	0.15%	5,504	-	0.00%	0
San Diego	T7 POLA	DSL	497	0.01%	21	106,599	0.11%	3,915	-	0.00%	0
San Diego	T7 Public	DSL	1,418	0.04%	59	32,496	0.03%	1,194	-	0.00%	0
San Diego	T7 Single	DSL	2,064	0.06%	86	242,848	0.24%	8,920	-	0.00%	0
San Diego	T7 single construction	DSL	1,440	0.04%	60	135,439	0.13%	4,975	-	0.00%	0
San Diego	T7 SWCV	DSL	2,184	0.06%	91	100,623	0.10%	3,696	-	0.00%	0
San Diego	T7 tractor	DSL	5,625	0.16%	236	733,911	0.73%	26,956	-	0.00%	0
San Diego	T7 tractor construction	DSL	1,212	0.04%	51	100,980	0.10%	3,709	-	0.00%	0
San Diego	T7 utility	DSL	146	0.00%	6	3,328	0.00%	122	-	0.00%	0
San Diego	T7IS	GAS	261	0.01%	11	27,238	0.03%	1,000	5,222	0.02%	219
San Diego	UBUS	GAS	679	0.02%	28	80,825	0.08%	2,969	2,718	0.01%	114
San Diego	UBUS	DSL	669	0.02%	28	79,601	0.08%	2,924	2,676	0.01%	112
			3,435,960		*143,921*	*100,696,455*		*3,698,527*	*21,303,139*		*892,317*

ROG																				
ROG_RUNEX			ROG_IDLEX			ROG_STREX			ROG_HOTSOAK			ROG_RUNLOSS			ROG_RESTLOSS			ROG_DIURN		
g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/trip	g	lb	g/trip	g	lb	g/veh/day	g	lb	g/veh/day	g	lb
0.05	77.34	0.17	0.02	0.56	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	22,359.20	49.29	-	-	-	0.06	28,885.80	63.68	0.03	13,399.82	29.54	0.14	66,507.67	146.62	0.06	4,764.09	10.50	0.05	3,470.43	7.65
0.00	114.30	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	0.00	428.75	0.95	-	-	-	0.01	97.27	0.21	0.02	234.22	0.52
0.00	552.02	1.22	-	-	-	0.01	299.15	0.66	0.04	1,398.12	3.08	0.18	5,856.43	12.91	0.12	654.62	1.44	0.08	447.02	0.99
0.02	1.13	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	0.00	0.07	0.00	-	-	-	0.01	0.02	0.00	0.02	0.04	0.00
0.00	2,978.03	6.57	-	-	-	0.01	1,901.75	4.19	0.03	4,816.41	10.62	0.15	22,997.19	50.70	0.12	2,879.73	6.35	0.08	2,089.29	4.61
0.01	21.30	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	73.54	0.16	0.21	97.82	0.22	0.09	604.91	1.33	0.05	351.43	0.77	0.27	1,865.37	4.11	0.02	10.52	0.02	0.02	10.52	0.02
0.12	3,404.06	7.50	0.11	120.45	0.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	32.92	0.07	0.20	42.17	0.09	0.08	235.20	0.52	0.04	127.08	0.28	0.21	655.52	1.45	0.02	3.82	0.01	0.02	3.90	0.01
0.12	1,686.54	3.72	0.11	56.53	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.29	46,662.21	102.87	-	-	-	1.96	15,157.14	33.42	0.62	4,822.23	10.63	1.22	9,403.09	20.73	1.34	5,180.99	11.42	1.84	7,089.41	15.63
0.01	1,737.33	3.83	-	-	-	0.01	1,228.64	2.71	0.06	5,232.97	11.54	0.18	15,382.92	33.91	0.26	3,589.24	7.91	0.18	2,476.52	5.46
0.00	47.89	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	20.88	0.05	-	-	-	0.23	6.87	0.02	0.02	0.65	0.00	0.27	8.09	0.02	0.02	7.34	0.02	0.03	9.71	0.02
0.07	40.12	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	138.91	0.31	0.86	12.96	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	44.70	0.10	0.59	60.76	0.13	0.26	533.56	1.18	0.02	34.51	0.08	0.20	410.92	0.91	0.02	1.98	0.00	0.03	2.66	0.01
0.20	348.61	0.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	14.55	0.03	8.25	286.68	0.63	0.67	93.81	0.21	0.07	10.24	0.02	0.49	67.99	0.15	0.02	0.81	0.00	0.03	1.07	0.00
0.06	100.92	0.22	0.09	5.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.05	7.26	0.02	0.02	0.18	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	4.89	0.01	0.02	0.05	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	14.25	0.03	0.02	0.12	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.05	127.70	0.28	0.02	0.63	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	316.98	0.70	0.02	2.90	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	714.93	1.58	0.02	5.69	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	1,744.55	3.85	0.02	14.77	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	2.80	0.01	0.02	0.03	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	8.17	0.02	0.02	0.07	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.04	58.21	0.13	0.02	1.81	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.03	7.81	0.02	0.02	0.23	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.01	81.35	0.18	0.79	154.32	0.34	0.35	1,353.72	2.98	0.05	194.24	0.43	0.25	984.03	2.17	0.02	4.05	0.01	0.02	4.08	0.01
0.09	9.13	0.02	0.40	4.12	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	1,368.79	3.02	2.24	186.04	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	152.80	0.34	2.24	24.39	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.07	1,496.61	3.30	2.78	294.63	0.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	540.69	1.19	2.78	91.23	0.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	461.10	1.02	0.35	12.38	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	326.56	0.72	0.70	14.61	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	69.39	0.15	0.68	40.24	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	576.82	1.27	0.40	34.89	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	323.21	0.71	0.40	24.35	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.06	210.49	0.46	0.02	1.98	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	2,105.85	4.64	0.40	95.10	0.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.08	302.67	0.67	0.40	20.49	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.05	6.07	0.01	0.61	3.73	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.32	316.84	0.70	-	-	-	0.71	155.74	0.34	0.05	11.24	0.02	0.26	56.89	0.13	0.02	0.23	0.00	0.02	0.24	0.00
0.02	67.83	0.15	-	-	-	1.50	170.96	0.38	0.11	12.22	0.03	1.03	117.74	0.26	0.03	0.75	0.00	0.02	0.67	0.00
0.02	67.61	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		*202.71*			*3.77*			*111.61*			*67.99*			*274.07*			*37.91*			*34.92*
Total		**732.98**																		

NOx									CO									SOx								
NOx_RUNEX			NOx_IDLEX			NOx_STREX			CO_RUNEX			CO_IDLEX			CO_STREX			SOx_RUNEX			SOx_IDLEX			SOx_STREX		
g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb
1.19	1,997.56	4.40	1.72	61.30	0.14	-	-	-	0.24	407.11	0.90	0.12	4.21	0.01	-	-	-	0.01	18.48	0.04	0.01	0.21	0.00	-	-	-
0.05	86,816.28	191.40	-	-	-	0.03	16,464.03	36.30	0.40	765,318.21	1,687.24	-	-	-	0.88	417,484.60	920.40	0.00	3,766.88	8.30	-	-	-	0.00	203.81	0.45
0.01	207.35	0.46	-	-	-	-	-	-	0.14	3,804.03	8.39	-	-	-	-	-	-	0.00	49.61	0.11	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.02	2,993.25	6.60	-	-	-	0.01	437.59	0.96	0.28	37,368.21	82.38	-	-	-	0.38	12,540.45	27.65	0.00	281.62	0.62	-	-	-	0.00	15.01	0.03
0.03	2.52	0.01	-	-	-	-	-	-	0.16	11.71	0.03	-	-	-	-	-	-	0.00	0.15	0.00	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.02	15,412.55	33.98	-	-	-	0.02	2,423.34	5.34	0.34	220,539.84	486.21	-	-	-	0.44	69,198.12	152.56	0.00	1,592.09	3.51	-	-	-	0.00	80.94	0.18
0.03	41.74	0.09	-	-	-	-	-	-	0.15	211.24	0.47	-	-	-	-	-	-	0.00	3.30	0.01	-	-	-	-	-	-
0.04	459.91	1.01	0.02	8.79	0.02	0.61	4,263.40	9.40	0.15	1,860.37	4.10	3.15	1,480.53	3.26	2.46	17,235.87	38.00	0.01	95.87	0.21	0.00	0.53	0.00	0.00	4.17	0.01
0.09	2,577.62	5.68	0.84	925.66	2.04	-	-	-	0.58	16,075.48	35.44	0.91	998.38	2.20	-	-	-	0.00	134.78	0.30	0.00	1.28	0.00	-	-	-
0.04	199.36	0.44	0.02	3.79	0.01	0.52	1,625.55	3.58	0.15	842.57	1.86	3.15	657.45	1.45	2.46	7,653.75	16.87	0.01	49.33	0.11	0.00	0.27	0.00	0.00	2.13	0.00
0.07	1,031.09	2.27	0.78	403.64	0.89	-	-	-	0.55	7,612.69	16.78	0.91	468.56	1.03	-	-	-	0.01	76.24	0.17	0.00	0.97	0.00	-	-	-
1.14	23,169.17	51.08	-	-	-	0.31	2,400.35	5.29	17.87	363,647.02	801.71	-	-	-	10.01	77,255.55	170.32	0.00	45.11	0.10	-	-	-	0.00	4.85	0.01
0.03	8,733.41	19.25	-	-	-	0.02	1,543.36	3.40	0.37	126,668.86	279.26	-	-	-	0.50	43,439.63	95.77	0.00	1,095.88	2.42	-	-	-	0.00	58.01	0.13
0.01	85.44	0.19	-	-	-	-	-	-	0.16	1,590.70	3.51	-	-	-	-	-	-	0.00	29.73	0.07	-	-	-	-	-	-
0.10	198.03	0.44	-	-	-	0.65	19.29	0.04	0.17	326.05	0.72	-	-	-	3.82	114.08	0.25	0.01	23.35	0.05	-	-	-	0.00	0.02	0.00
2.46	1,334.38	2.94	-	-	-	-	-	-	0.21	113.96	0.25	-	-	-	-	-	-	0.01	5.21	0.01	-	-	-	-	-	-
1.63	2,796.92	6.17	26.17	395.19	0.87	-	-	-	0.48	820.24	1.81	3.17	47.90	0.11	-	-	-	0.02	26.28	0.06	0.10	1.46	0.00	-	-	-
0.09	362.02	0.80	0.05	5.45	0.01	0.62	1,269.10	2.80	0.18	746.39	1.65	4.85	498.82	1.10	3.85	7,928.41	17.48	0.01	49.21	0.11	0.00	0.37	0.00	0.00	1.60	0.00
4.04	7,150.25	15.76	-	-	-	-	-	-	1.16	2,058.48	4.54	-	-	-	-	-	-	0.02	30.64	0.07	-	-	-	-	-	-
0.09	114.38	0.25	0.74	25.78	0.06	0.87	120.36	0.27	0.21	253.00	0.56	68.01	2,363.40	5.21	11.70	1,626.87	3.59	0.01	7.67	0.02	0.02	0.86	0.00	0.00	0.19	0.00
1.36	2,355.94	5.19	9.34	545.65	1.20	-	-	-	0.31	531.19	1.17	0.64	37.45	0.08	-	-	-	0.01	20.42	0.05	0.03	1.89	0.00	-	-	-
1.35	195.03	0.43	1.72	19.18	0.04	-	-	-	0.26	38.20	0.08	0.12	1.32	0.00	-	-	-	0.01	1.60	0.00	0.01	0.07	0.00	-	-	-
1.04	121.12	0.27	1.72	5.03	0.01	-	-	-	0.22	25.76	0.06	0.12	0.35	0.00	-	-	-	0.01	1.25	0.00	0.01	0.02	0.00	-	-	-
0.96	343.64	0.76	1.72	12.80	0.03	-	-	-	0.21	75.03	0.17	0.12	0.88	0.00	-	-	-	0.01	3.93	0.01	0.01	0.04	0.00	-	-	-
1.22	3,320.11	7.32	1.72	68.91	0.15	-	-	-	0.25	672.17	1.48	0.12	4.73	0.01	-	-	-	0.01	29.90	0.07	0.01	0.24	0.00	-	-	-
1.09	7,961.54	17.55	1.72	315.74	0.70	-	-	-	0.23	1,668.46	3.68	0.12	21.67	0.05	-	-	-	0.01	80.35	0.18	0.01	1.09	0.00	-	-	-
1.14	18,184.86	40.09	1.72	619.40	1.37	-	-	-	0.24	3,763.15	8.30	0.12	42.51	0.09	-	-	-	0.01	172.61	0.38	0.01	2.14	0.00	-	-	-
1.09	43,721.07	96.39	1.72	1,608.99	3.55	-	-	-	0.23	9,182.72	20.24	0.12	110.42	0.24	-	-	-	0.01	444.32	0.98	0.01	5.57	0.01	-	-	-
1.04	69.40	0.15	1.72	2.88	0.01	-	-	-	0.22	14.76	0.03	0.12	0.20	0.00	-	-	-	0.01	0.72	0.00	0.01	0.01	0.00	-	-	-
0.96	196.89	0.43	1.72	7.33	0.02	-	-	-	0.21	42.99	0.09	0.12	0.50	0.00	-	-	-	0.01	2.25	0.00	0.01	0.03	0.00	-	-	-
0.79	1,307.20	2.88	1.76	198.43	0.44	-	-	-	0.18	304.77	0.67	0.12	13.60	0.03	-	-	-	0.01	18.27	0.04	0.01	0.67	0.00	-	-	-
0.70	166.87	0.37	1.72	24.82	0.05	-	-	-	0.17	41.11	0.09	0.12	1.70	0.00	-	-	-	0.01	2.62	0.01	0.01	0.09	0.00	-	-	-
0.09	670.28	1.48	0.07	14.13	0.03	0.71	2,776.79	6.12	0.19	1,396.02	3.08	12.07	2,344.99	5.17	5.10	19,836.12	43.73	0.01	90.18	0.20	0.01	1.01	0.00	0.00	4.51	0.01
1.69	181.50	0.40	12.31	125.79	0.28	-	-	-	0.50	53.93	0.12	1.49	15.25	0.03	-	-	-	0.01	1.53	0.00	0.04	0.45	0.00	-	-	-
1.33	23,584.80	52.00	68.34	5,674.25	12.51	-	-	-	0.46	8,082.40	17.82	8.28	687.74	1.52	-	-	-	0.01	242.36	0.53	0.23	19.49	0.04	-	-	-
1.38	2,661.31	5.87	68.34	743.90	1.64	-	-	-	0.47	902.25	1.99	8.28	90.16	0.20	-	-	-	0.01	26.82	0.06	0.23	2.55	0.01	-	-	-
1.11	24,466.57	53.94	84.82	8,986.23	19.81	-	-	-	0.40	8,837.15	19.48	10.28	1,089.17	2.40	-	-	-	0.01	301.71	0.67	0.29	31.11	0.07	-	-	-
1.33	9,316.57	20.54	84.82	2,782.43	6.13	-	-	-	0.46	3,192.62	7.04	10.28	337.24	0.74	-	-	-	0.01	95.73	0.21	0.29	9.56	0.02	-	-	-
1.49	8,178.77	18.03	10.75	377.66	0.83	-	-	-	0.49	2,722.66	6.00	1.30	45.77	0.10	-	-	-	0.01	76.64	0.17	0.04	1.29	0.00	-	-	-
1.48	5,783.96	12.75	21.41	445.73	0.98	-	-	-	0.49	1,928.28	4.25	2.60	54.02	0.12	-	-	-	0.01	54.52	0.12	0.07	1.53	0.00	-	-	-
1.05	1,254.26	2.77	21.39	1,269.82	2.80	-	-	-	0.32	383.34	0.85	2.55	151.58	0.33	-	-	-	0.01	16.84	0.04	0.06	3.85	0.01	-	-	-
1.04	9,283.97	20.47	12.31	1,064.21	2.35	-	-	-	0.38	3,405.96	7.51	1.49	128.99	0.28	-	-	-	0.01	124.43	0.27	0.04	3.66	0.01	-	-	-
1.05	5,213.06	11.49	12.31	742.60	1.64	-	-	-	0.38	1,908.35	4.21	1.49	90.01	0.20	-	-	-	0.01	69.41	0.15	0.04	2.56	0.01	-	-	-
0.45	1,665.73	3.67	19.17	1,753.65	3.87	-	-	-	14.59	53,910.31	118.85	2.32	211.93	0.47	-	-	-	0.00	1.08	0.00	0.00	0.05	0.00	-	-	-
1.35	36,490.57	80.45	12.31	2,900.59	6.39	-	-	-	0.46	12,434.55	27.41	1.49	351.56	0.78	-	-	-	0.01	367.93	0.81	0.04	9.95	0.02	-	-	-
1.44	5,328.24	11.75	12.31	624.97	1.38	-	-	-	0.48	1,787.18	3.94	1.49	75.75	0.17	-	-	-	0.01	51.69	0.11	0.04	2.14	0.00	-	-	-
0.68	82.78	0.18	18.61	113.62	0.25	-	-	-	0.29	35.87	0.08	2.26	13.77	0.03	-	-	-	0.01	1.70	0.00	0.06	0.39	0.00	-	-	-
3.05	3,047.14	6.72	-	-	-	3.25	711.74	1.57	29.84	29,856.49	65.82	-	-	-	42.04	9,194.79	20.27	0.02	16.51	0.04	-	-	-	0.00	0.42	0.00
0.38	1,119.59	2.47	-	-	-	2.62	298.41	0.66	0.44	1,317.33	2.90	-	-	-	15.31	1,742.79	3.84	0.02	47.74	0.11	-	-	-	0.00	0.36	0.00
0.50	1,457.69	3.21	-	-	-	-	-	-	7.64	22,333.73	49.24	-	-	-	-	-	-	0.00	0.15	0.00	-	-	-	-	-	-
		823.24			*72.48*			*75.74*			*3,794.43*			*27.43*			*1,510.72*			*21.49*			*0.24*			*0.83*
		971.46									**5,332.59**									**22.55**						

PM10																PM2.5																	
PM10_RUNEX			PM10_IDLEX			PM10_STREX			PM10_PMTW			PM10_PMBW				PM2_5_RUNEX			PM2_5_IDLEX			PM2_5_STREX			PM2_5_PMTW			PM2_5_PMBW					
g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/mi	g	lb		g/mi	g	lb	g/veh/day	g	lb	g/trip	g	lb	g/mi	g	lb	g/mi	g	lb			
0.00	5.45	0.01	0.00	0.00	0.00	-	-	-	0.01	20.07	0.04	0.13	217.96	0.48		0.00	5.22	0.01	0.00	0.00	0.00	-	-	-	0.00	5.02	0.01	0.06	93.41	0.21			
0.00	1,327.50	2.93	-	-	-	0.00	446.98	0.99	0.01	15,169.98	33.44	0.04	69,687.10	153.63		0.00	1,220.59	2.69	-	-	-	0.00	410.98	0.91	0.00	3,792.50	8.36	0.02	29,865.90	65.84			
0.00	17.91	0.04	-	-	-	-	-	-	0.01	211.72	0.47	0.04	972.57	2.14		0.00	17.14	0.04	-	-	-	-	-	-	0.00	52.93	0.12	0.02	416.82	0.92			
-	-	-	-	-	-	-	-	-	0.01	2,815.39	6.21	0.04	12,933.21	28.51		-	-	-	-	-	-	-	-	-	0.00	703.85	1.55	0.02	5,542.80	12.22			
0.00	96.89	0.21	-	-	-	0.00	33.22	0.07	0.01	1,062.90	2.34	0.04	4,882.68	10.76		0.00	89.08	0.20	-	-	-	0.00	30.54	0.07	0.00	265.72	0.59	0.02	2,092.58	4.61			
0.00	0.32	0.00	-	-	-	-	-	-	0.01	0.59	0.00	0.04	2.72	0.01		0.00	0.31	0.00	-	-	-	-	-	-	0.00	0.15	0.00	0.02	1.16	0.00			
-	-	-	-	-	-	-	-	-	0.01	0.48	0.00	0.04	2.19	0.00		-	-	-	-	-	-	-	-	-	0.00	0.12	0.00	0.02	0.94	0.00			
0.00	454.55	1.00	-	-	-	0.00	146.68	0.32	0.01	5,188.24	11.44	0.04	23,833.47	52.54		0.00	417.94	0.92	-	-	-	0.00	134.87	0.30	0.00	1,297.06	2.86	0.02	10,214.35	22.52			
0.00	5.78	0.01	-	-	-	-	-	-	0.01	11.43	0.03	0.04	52.52	0.12		0.00	5.53	0.01	-	-	-	-	-	-	0.00	2.86	0.01	0.02	22.51	0.05			
0.00	27.16	0.06	-	-	-	0.00	8.15	0.02	0.01	98.46	0.22	0.08	940.75	2.07		0.00	24.98	0.06	-	-	-	0.00	7.49	0.02	0.00	24.61	0.05	0.03	403.18	0.89			
0.01	199.11	0.44	0.01	13.02	0.03	-	-	-	0.01	331.31	0.73	0.08	2,110.47	4.65		0.01	190.50	0.42	0.01	12.46	0.03	-	-	-	0.00	82.83	0.18	0.03	904.49	1.99			
0.00	12.58	0.03	-	-	-	0.00	3.70	0.01	0.01	45.19	0.10	0.09	503.80	1.11		0.00	11.56	0.03	-	-	-	0.00	3.40	0.01	0.00	11.30	0.02	0.04	215.91	0.48			
0.01	121.91	0.27	0.02	7.89	0.02	-	-	-	0.01	167.42	0.37	0.09	1,244.18	2.74		0.01	116.64	0.26	0.01	7.55	0.02	-	-	-	0.00	41.85	0.09	0.04	533.22	1.18			
0.00	50.73	0.11	-	-	-	0.00	25.72	0.06	0.00	81.40	0.18	0.01	239.32	0.53		0.00	47.29	0.10	-	-	-	0.00	23.98	0.05	0.00	20.35	0.04	0.01	102.57	0.23			
0.00	248.72	0.55	-	-	-	0.00	84.42	0.19	0.01	2,762.85	6.09	0.04	12,691.85	27.98		0.00	228.69	0.50	-	-	-	0.00	77.62	0.17	0.00	690.71	1.52	0.02	5,439.36	11.99			
0.00	7.66	0.02	-	-	-	-	-	-	0.01	79.32	0.17	0.04	364.37	0.80		0.00	7.33	0.02	-	-	-	-	-	-	0.00	19.83	0.04	0.02	156.16	0.34			
0.00	2.73	0.01	-	-	-	0.00	0.03	0.00	0.01	23.14	0.05	0.13	251.30	0.55		0.00	2.51	0.01	-	-	-	0.00	0.03	0.00	0.00	5.78	0.01	0.06	107.70	0.24			
0.02	9.28	0.02	-	-	-	-	-	-	0.02	8.66	0.02	0.13	70.57	0.16		0.02	8.88	0.02	-	-	-	-	-	-	0.00	2.17	0.00	0.06	30.24	0.07			
0.00	8.49	0.02	0.00	0.04	0.00	-	-	-	0.01	20.58	0.05	0.13	223.50	0.49		0.00	8.12	0.02	0.00	0.04	0.00	-	-	-	0.00	5.14	0.01	0.06	95.78	0.21			
0.00	5.79	0.01	-	-	-	0.00	2.37	0.01	0.01	48.80	0.11	0.13	530.06	1.17		0.00	5.32	0.01	-	-	-	0.00	2.18	0.00	0.00	12.20	0.03	0.06	227.17	0.50			
0.01	10.70	0.02	-	-	-	-	-	-	-	-	-	-	-	-		0.01	10.23	0.02	-	-	-	-	-	-	-	-	-	-	-	-			
0.00	1.98	0.00	-	-	-	0.00	0.37	0.00	0.01	9.77	0.02	0.74	909.89	2.01		0.00	1.82	0.00	-	-	-	0.00	0.34	0.00	0.00	2.44	0.01	0.32	389.95	0.86			
0.00	5.53	0.01	0.00	0.04	0.00	-	-	-	0.01	20.79	0.05	0.74	1,290.67	2.85		0.00	5.29	0.01	0.00	0.04	0.00	-	-	-	0.00	5.20	0.01	0.32	553.15	1.22			
0.00	0.52	0.00	0.00	0.00	0.00	-	-	-	0.01	1.73	0.00	0.13	18.81	0.04		0.00	0.50	0.00	0.00	0.00	0.00	-	-	-	0.00	0.43	0.00	0.06	8.06	0.02			
0.00	0.33	0.00	0.00	0.00	0.00	-	-	-	0.01	1.39	0.00	0.13	15.12	0.03		0.00	0.32	0.00	0.00	0.00	0.00	-	-	-	0.00	0.35	0.00	0.06	6.48	0.01			
0.00	0.95	0.00	0.00	0.00	0.00	-	-	-	0.01	4.27	0.01	0.13	46.41	0.10		0.00	0.91	0.00	0.00	0.00	0.00	-	-	-	0.00	1.07	0.00	0.06	19.89	0.04			
0.00	9.06	0.02	0.00	0.01	0.00	-	-	-	0.01	32.53	0.07	0.13	353.33	0.78		0.00	8.67	0.02	0.00	0.01	0.00	-	-	-	0.00	8.13	0.02	0.06	151.43	0.33			
0.00	21.90	0.05	0.00	0.02	0.00	-	-	-	0.01	87.39	0.19	0.13	949.17	2.09		0.00	20.96	0.05	0.00	0.02	0.00	-	-	-	0.00	21.85	0.05	0.06	406.79	0.90			
0.00	49.89	0.11	0.00	0.05	0.00	-	-	-	0.01	191.66	0.42	0.13	2,081.72	4.59		0.00	47.73	0.11	0.00	0.05	0.00	-	-	-	0.00	47.91	0.11	0.06	892.16	1.97			
0.00	120.35	0.27	0.00	0.12	0.00	-	-	-	0.01	483.26	1.07	0.13	5,248.96	11.57		0.00	115.14	0.25	0.00	0.12	0.00	-	-	-	0.00	120.81	0.27	0.06	2,249.55	4.96			
0.00	0.19	0.00	0.00	0.00	0.00	-	-	-	0.01	0.80	0.00	0.13	8.66	0.02		0.00	0.18	0.00	0.00	0.00	0.00	-	-	-	0.00	0.20	0.00	0.06	3.71	0.01			
0.00	0.55	0.00	0.00	0.00	0.00	-	-	-	0.01	2.45	0.01	0.13	26.59	0.06		0.00	0.52	0.00	0.00	0.00	0.00	-	-	-	0.00	0.61	0.00	0.06	11.40	0.03			
0.00	3.75	0.01	0.00	0.02	0.00	-	-	-	0.01	19.87	0.04	0.13	215.78	0.48		0.00	3.59	0.01	0.00	0.02	0.00	-	-	-	0.00	4.97	0.01	0.06	92.48	0.20			
0.00	0.48	0.00	0.00	0.00	0.00	-	-	-	0.01	2.86	0.01	0.13	31.01	0.07		0.00	0.46	0.00	0.00	0.00	0.00	-	-	-	0.00	0.71	0.00	0.06	13.29	0.03			
0.00	10.64	0.02	-	-	-	0.00	6.12	0.01	0.01	89.53	0.20	0.13	972.43	2.14		0.00	9.78	0.02	-	-	-	0.00	5.63	0.01	0.00	22.38	0.05	0.06	416.76	0.92			
0.01	0.66	0.00	0.00	0.01	0.00	-	-	-	0.04	3.86	0.01	0.06	6.63	0.01		0.01	0.63	0.00	0.00	0.01	0.00	-	-	-	0.01	0.97	0.00	0.03	2.84	0.01			
0.01	97.33	0.21	0.01	0.55	0.00	-	-	-	0.04	638.84	1.41	0.06	1,095.61	2.42		0.01	93.12	0.21	0.01	0.52	0.00	-	-	-	0.01	159.71	0.35	0.03	469.55	1.04			
0.01	10.96	0.02	0.01	0.07	0.00	-	-	-	0.04	69.23	0.15	0.06	118.73	0.26		0.01	10.49	0.02	0.01	0.07	0.00	-	-	-	0.01	17.31	0.04	0.03	50.88	0.11			
0.00	102.18	0.23	0.01	0.87	0.00	-	-	-	0.04	792.16	1.75	0.06	1,358.56	3.00		0.00	97.76	0.22	0.01	0.83	0.00	-	-	-	0.01	198.04	0.44	0.03	582.24	1.28			
0.01	38.45	0.08	0.01	0.27	0.00	-	-	-	0.04	252.34	0.56	0.06	432.77	0.95		0.01	36.78	0.08	0.01	0.26	0.00	-	-	-	0.01	63.09	0.14	0.03	185.47	0.41			
0.01	33.56	0.07	0.00	0.04	0.00	-	-	-	0.04	198.15	0.44	0.06	339.83	0.75		0.01	32.11	0.07	0.00	0.03	0.00	-	-	-	0.01	49.54	0.11	0.03	145.64	0.32			
0.01	23.74	0.05	0.00	0.04	0.00	-	-	-	0.04	140.95	0.31	0.06	241.73	0.53		0.01	22.71	0.05	0.00	0.04	0.00	-	-	-	0.01	35.24	0.08	0.03	103.60	0.23			
0.00	5.56	0.01	0.00	0.21	0.00	-	-	-	0.04	42.97	0.09	0.06	73.69	0.16		0.00	5.32	0.01	0.00	0.20	0.00	-	-	-	0.01	10.74	0.02	0.03	31.58	0.07			
0.00	38.64	0.09	0.00	0.10	0.00	-	-	-	0.04	321.11	0.71	0.06	550.70	1.21		0.00	36.97	0.08	0.00	0.10	0.00	-	-	-	0.01	80.28	0.18	0.03	236.02	0.52			
0.00	21.70	0.05	0.00	0.07	0.00	-	-	-	0.04	179.09	0.39	0.06	307.13	0.68		0.00	20.76	0.05	0.00	0.07	0.00	-	-	-	0.01	44.77	0.10	0.03	131.63	0.29			
0.00	11.38	0.03	0.00	0.20	0.00	-	-	-	0.04	133.05	0.29	0.06	228.18	0.50		0.00	10.89	0.02	0.00	0.19	0.00	-	-	-	0.01	33.26	0.07	0.03	97.79	0.22			
0.01	150.29	0.33	0.00	0.28	0.00	-	-	-	0.04	970.42	2.14	0.06	1,664.27	3.67		0.01	143.78	0.32	0.00	0.27	0.00	-	-	-	0.01	242.61	0.53	0.03	713.26	1.57			
0.01	21.87	0.05	0.00	0.06	0.00	-	-	-	0.04	133.52	0.29	0.06	228.99	0.50		0.01	20.93	0.05	0.00	0.06	0.00	-	-	-	0.01	33.38	0.07	0.03	98.14	0.22			
0.00	0.36	0.00	0.00	0.01	0.00	-	-	-	0.04	4.40	0.01	0.06	7.55	0.02		0.00	0.35	0.00	0.00	0.01	0.00	-	-	-	0.01	1.10	0.00	0.03	3.23	0.01			
0.00	1.16	0.00	-	-	-	0.00	0.34	0.00	0.02	20.01	0.04	0.06	61.77	0.14		0.00	1.07	0.00	-	-	-	0.00	0.32	0.00	0.01	5.00	0.01	0.03	26.47	0.06			
0.00	7.03	0.02	-	-	-	0.00	0.39	0.00	0.01	35.62	0.08	0.13	386.94	0.85		0.00	6.47	0.01	-	-	-	0.00	0.36	0.00	0.00	8.91	0.02	0.06	165.83	0.37			
0.00	3.26	0.01	-	-	-	-	-	-	0.01	35.08	0.08	0.84	2,461.24	5.43		0.00	3.12	0.01	-	-	-	-	-	-	0.00	8.77	0.02	0.36	1,054.82	2.33			
		7.51			*0.05*			*1.67*			*72.90*			*338.38*				*7.00*				*0.05*			*1.54*			*18.23*			*145.02*		
		420.52																**171.84**															