

Midfield Satellite Concourse Draft EIR

Appendix B

Air Quality and Greenhouse Gas Emissions

1.0 INTRODUCTION

This Air Quality and Greenhouse Gases appendix was developed to assist with the public disclosure requirements established under the California Environmental Quality Act (CEQA). The Draft EIR addresses the potential impact to air quality and climate change from the development of the proposed MSC North Project and future phase(s) of the MSC Program. This Air Quality and Greenhouse Gases appendix identifies the technical assumptions, methodologies, databases, and models that were used to conduct the Air Quality and Greenhouse Gas Emissions analyses for the EIR.

1.1 Background

Los Angeles World Airports (LAWA) is in the midst of a multi-billion dollar modernization program at Los Angeles International Airport (LAX or the Airport). LAX is the nation's third busiest airport in terms of total annual passengers and in terms of total annual aircraft operations. Although it has functioned as an airport since 1928, the main terminal complex at LAX was constructed in 1961 and its facilities are in need of modernization.

The LAX Master Plan, approved by the City of Los Angeles City Council in December 2004, is the strategic framework for future development at LAX. The main components of the LAX Master Plan include the modernization of the runway and taxiway system, redevelopment of the terminal area, access improvements to the Airport, and enhancement of passenger safety, security, and convenience. The LAX Master Plan was the subject of a joint Environmental Impact Statement (EIS) and Environmental Impact Report (EIR) completed in January 2005. The City of Los Angeles City Council certified the Final EIR as complying with the California Environmental Quality Act (CEQA) and the Federal Aviation Administration (FAA) issued a Record of Decision on the Final EIS in compliance with the National Environmental Policy Act (NEPA).

The approved LAX Master Plan includes the development of the "West Satellite Concourse". Subsequent to the release of the Final EIR/EIS, the West Satellite Concourse was renamed the Midfield Satellite Concourse (MSC). The LAX Master Plan EIS/EIR assessed the MSC at a programmatic level under CEQA, meaning that additional project level CEQA review is required before LAWA can construct and operate one or more components of the MSC Program.

The overall MSC Program, as documented in the LAX Master Plan, includes the following facilities:

- A Midfield Satellite Concourse (MSC);
- A Central Terminal Processor (CTP) in the Central Terminal Area (CTA);
- A connector/conveyance system between the MSC and the CTP; and
- Construction of new taxiways/taxilanes, apron areas, and utilities to service the MSC.

Due to the size and scale of the MSC Program, LAWA proposes to implement the program in phases. Phase I ("MSC North Project") of the MSC Program is the construction of the northern portion of the multi-story MSC facility and associated improvements. Future phase(s) will

include extension of the MSC North facility, the CTP, and a connector/conveyance system between the MSC and CTP. The MSC North Project is intended to improve the terminal operations, concessions facilities, and overall passenger experience at LAX. The facility would be designed to serve both domestic and international traffic.

1.2 Project Location

The Airport is located on the western end of the Los Angeles Basin and is bounded on the north by the City of Los Angeles communities of Westchester and Playa Del Rey (which form the Westchester-Playa Del Rey Community Plan Area), on the east by the City of Inglewood and the community of Lennox (unincorporated Los Angeles County), to the south by the City of El Segundo and the community of Del Aire (unincorporated Los Angeles County), and to the west by the Pacific Ocean. A regional map of LAX is shown in **Figure 1**.

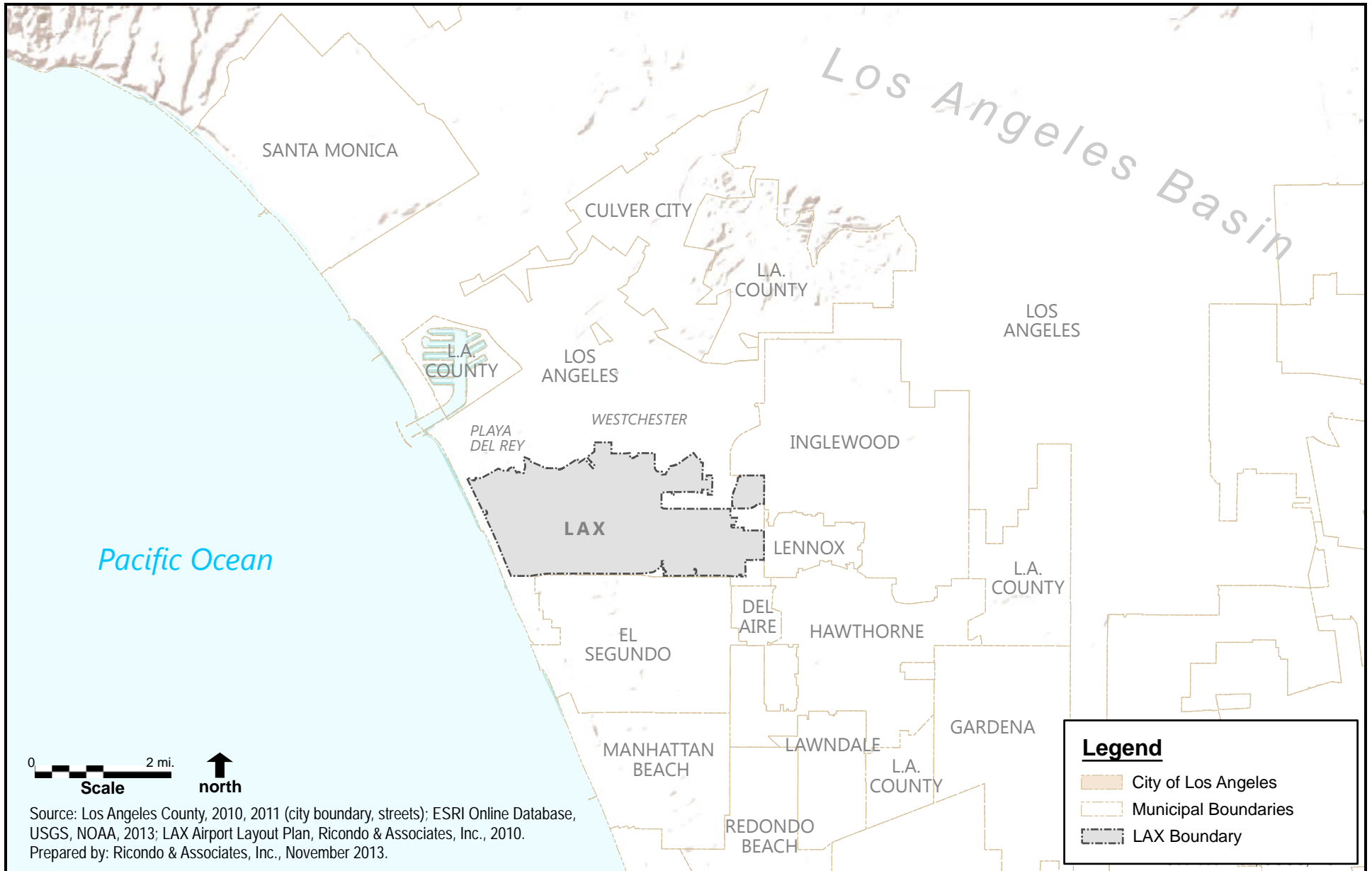
The MSC facility would be located in the western portion of the LAX airfield within the Air Operations Area (AOA) west of the Tom Bradley International Terminal (TBIT). The CTP would be located east of TBIT in the Central Terminal Area (CTA). The Project sites are shown in **Figure 2**.

1.3 Project Components

1.3.1 MSC North Project

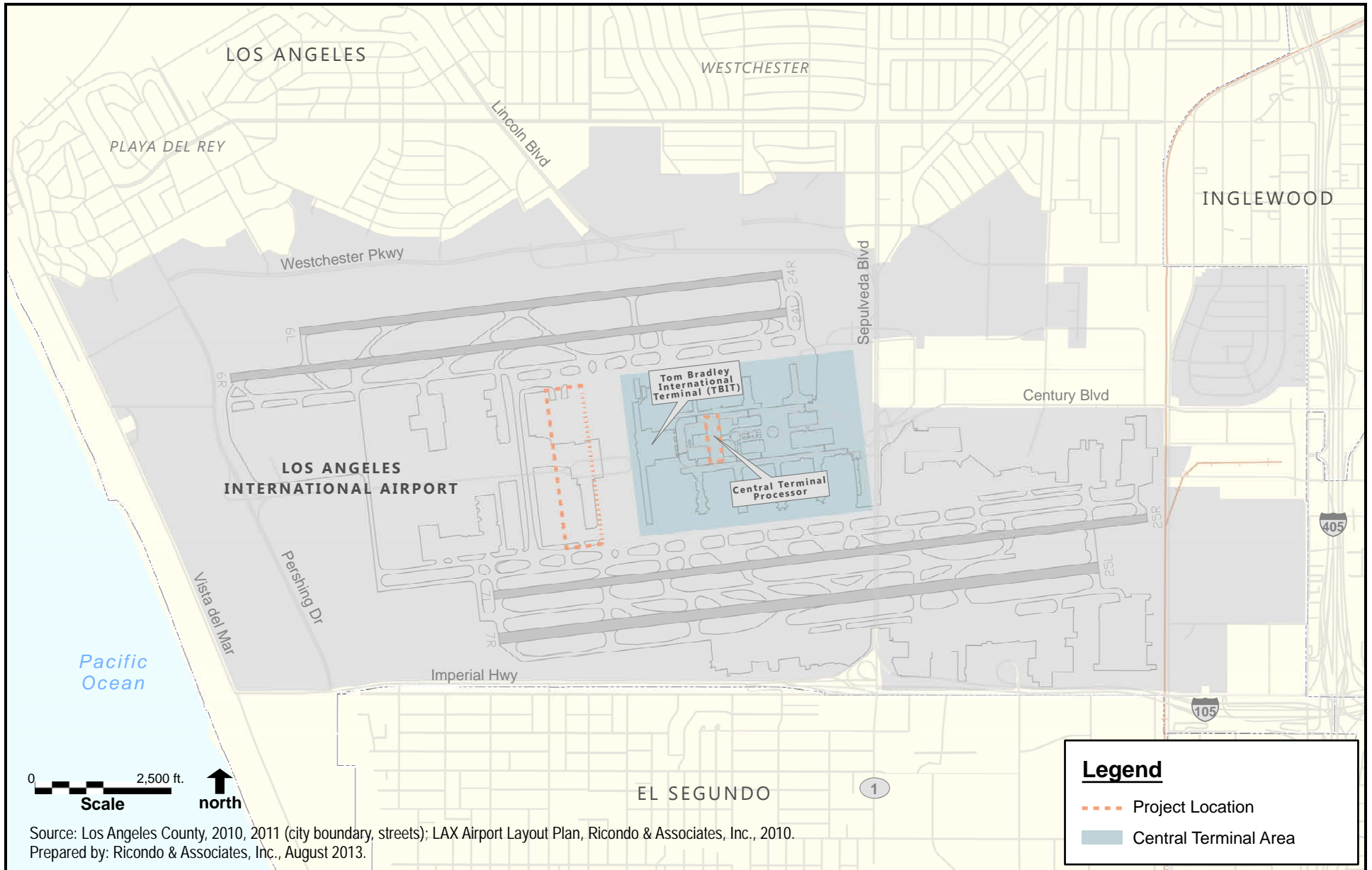
The MSC North Project represents Phase 1 of the overall MSC Program and would need to include provisions for development of future phase(s). Project components associated with the MSC North Project, as shown in **Figure 3**, include:

- A concourse for up to 11 gates and associated facilities;
- Additional taxiways and taxilanes;
- A ramp tower to control aircraft movement around the concourse facility and associated airfield;
- Utilities that support the MSC North Project; and
- The removal/relocation of existing facilities at the Project site, as shown in **Figure 4**.



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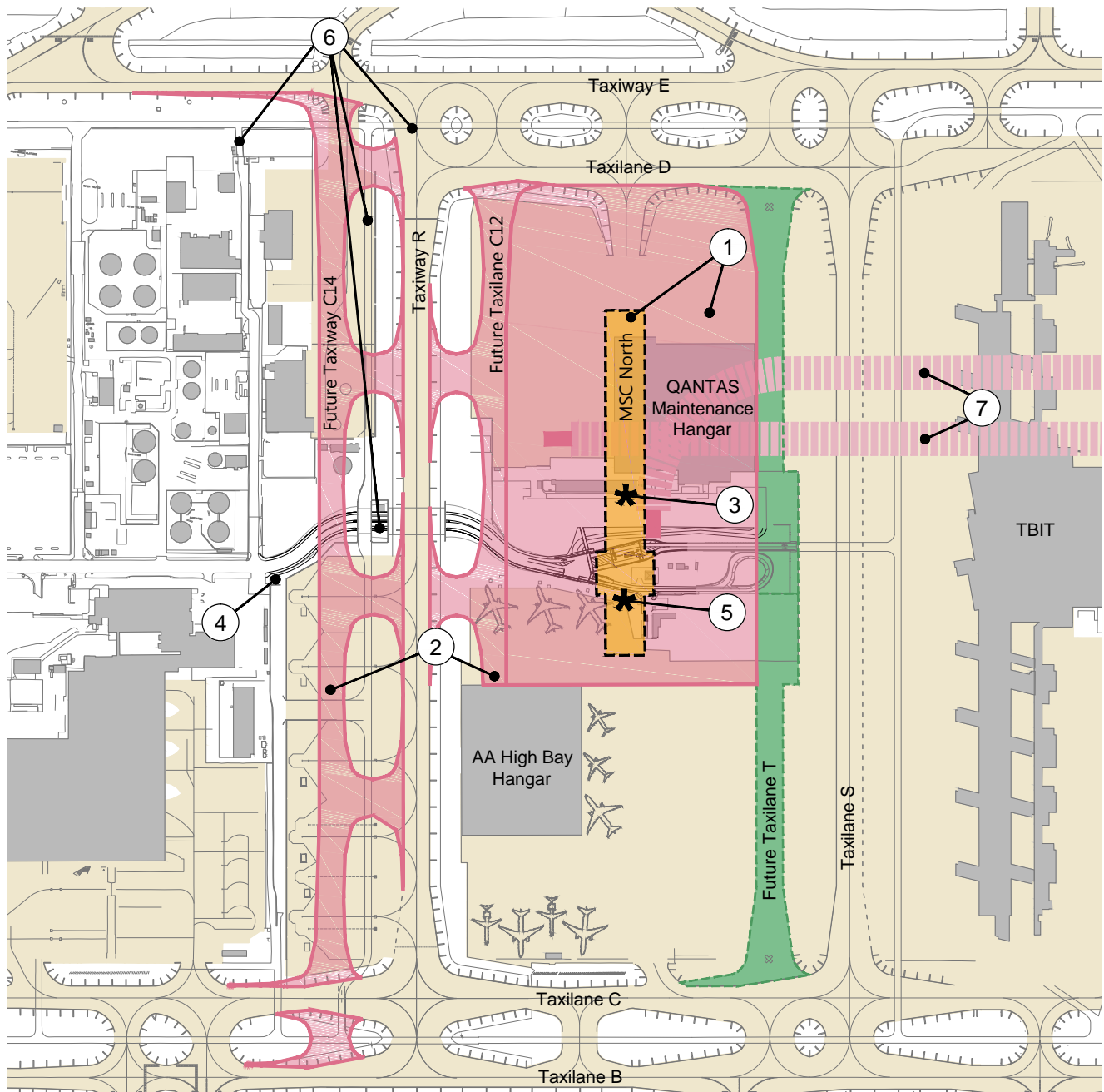
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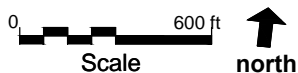
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|--------------------------|-----------------------------------|---|
| ① Concourse and Apron | ④ Project Utilities | ⑥ Reconfiguration of New Landside/AOA Perimeter and Service Roads |
| ② Taxiways and Taxilanes | ⑤ Ramp Tower or Supplemental ATCT | ⑦ Conveyance Tunnels |
| ③ Busing Operations | | |



Note:

Component numbers 3, 5, and 7 represent approximate locations of project components.



Source: HNTB, Corp., Los Angeles International Draft ALP, July 2012; Ricondo & Associates, Inc., January 2014.
Prepared by: Ricondo & Associates, Inc., February 2014.

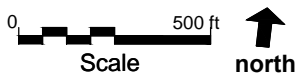
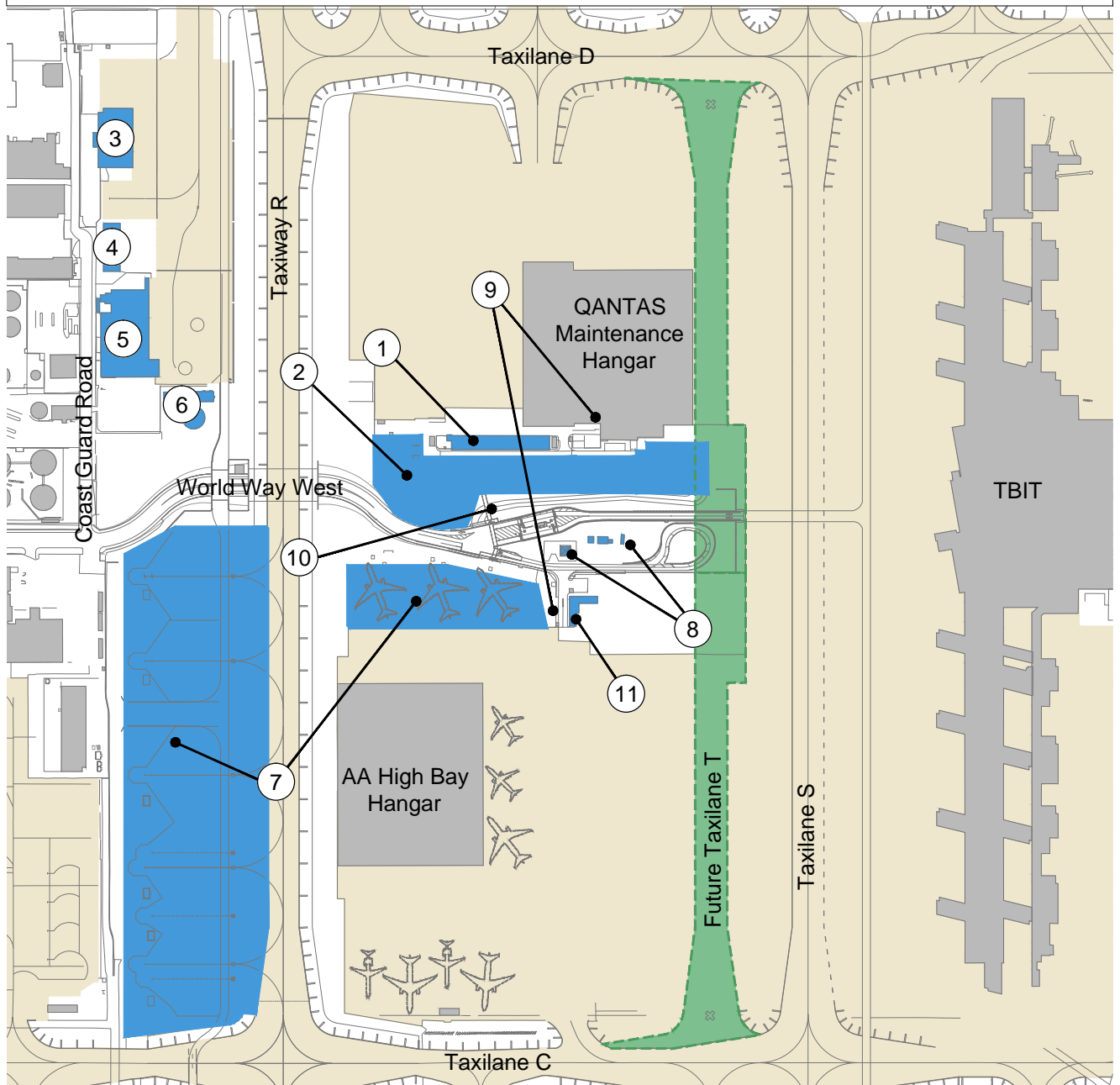
Legend

Existing Taxiway and Apron Pavement	
Existing Runway Pavement	
Existing Airfield Building	
Taxilane T Project Area	
Project Components	

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| ① American Airlines Maintenance (Non-Power) Shop | ⑤ U.S. Coast Guard Facility | ⑨ Electrical Industrial Stations (#66 and #1548) |
| ② American Airlines Leasehold Parking | ⑥ Water Deluge Tank and Pump Station | ⑩ Natural Gas Regulator |
| ③ US Airways Maintenance Facility | ⑦ Remain Overnight Aircraft Parking Spaces | ⑪ American Airlines Guard Post 5 |
| ④ Electrical Vault #2 | ⑧ FAA Navigational Aids | |



Source: HNTB, Corp., Los Angeles International Draft ALP, July 2012; Ricondo & Associates, Inc., August 2013.
 Prepared by: Ricondo & Associates, Inc., August 2013.

Legend

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| Existing Taxiway and Apron Pavement | |
| Existing Runway Pavement | |
| Existing Airfield Building | |
| Taxilane T Project Area | |
| Enabling Projects | |

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1.3.1.1 MSC North Project Components

1. **Midfield Satellite Concourse North and Associated Facilities:** The MSC North building would be constructed from the north limit of the concourse to a point just south of World Way West; the project site including the concourse building and associated apron areas encompasses approximately 36 acres in the western portion of the airfield. The MSC North building would have a footprint of 200,000 square feet and would consist of four levels, for a total of up to 800,000 square feet of floor space. The MSC North would have the ability to serve both international and domestic flights and could accommodate up to 11 gates.
 - **Busing:** Existing busing operations at the Airport mainly consist of passenger trips from the Central Terminal Area to the West Remote Gates/Pads (a distance ranging between 7,500 and 12,500 feet), and from Terminal 4 to the American Eagle Commuter Terminal (a distance of approximately 5,200 feet). Passengers accessing the MSC North building would be transported by bus between existing CTA terminal facilities and the MSC North building. Passengers would obtain tickets, check luggage, and be screened by security at the existing passenger terminals within the CTA and would be bused to and from existing bus gates located within these terminals. One or more new bus stations would be constructed as part of the MSC North building.
 - **Conveyance:** Baggage transport between the MSC North building and existing CTA terminals is anticipated to be accommodated by airside baggage carts and tugs. The MSC North Project will also include a connection between the proposed concourse facility and TBIT to accommodate baggage and/or passengers.
2. **Improvements to Taxiways and Taxilanes:** A new taxilane will be needed to provide aircraft access to the west side gates of the MSC North building from the airfield. Airside improvements associated with the MSC North Project include the construction of Taxilane C12 on the west side of the concourse facility and apron and the construction of a new crossfield taxiway, C14, located west of existing Taxiway R.
3. **Ramp Control Tower:** To ensure that the LAX airport traffic control tower (ATCT) has a clear unobstructed and direct view of aircraft located on runways and taxiways in the vicinity of the MSC North Project, supplemental aircraft movement control, in the form of a ramp control tower is included as a project component. The ramp control tower would be integrated into the MSC North building.
4. **MSC North Project Utilities:** The MSC North Project would also include the provision of utilities to serve the proposed concourse facility, including: domestic water; electrical and communication systems; chilled water and heating hot water; natural gas and fuel systems; and waste water systems.

1.3.1.2 Enabling Projects

Enabling projects needed to implement the MSC North Project include: 1) relocation/demolition of American Airlines maintenance (non-power) shop; 2) demolition of American Airlines leasehold parking; 3) demolition of US Airways maintenance facility; 4) relocation/demolition of electrical vault #2; 5) demolition of U.S. Coast Guard facility; 6) relocation/demolition of a water deluge tank and pump station; 7) removal of five RON (remain overnight) aircraft parking spaces; 8) relocation of FAA navigational aids (beacon and antenna array); 9) relocation and demolition of electrical substation; 10) relocation of a natural gas regulator; 11) removal of American Airlines Guard Post #5; and 12) removal and/or relocation of existing utility lines.

1.3.2 Future Phase(s) of the MSC Program

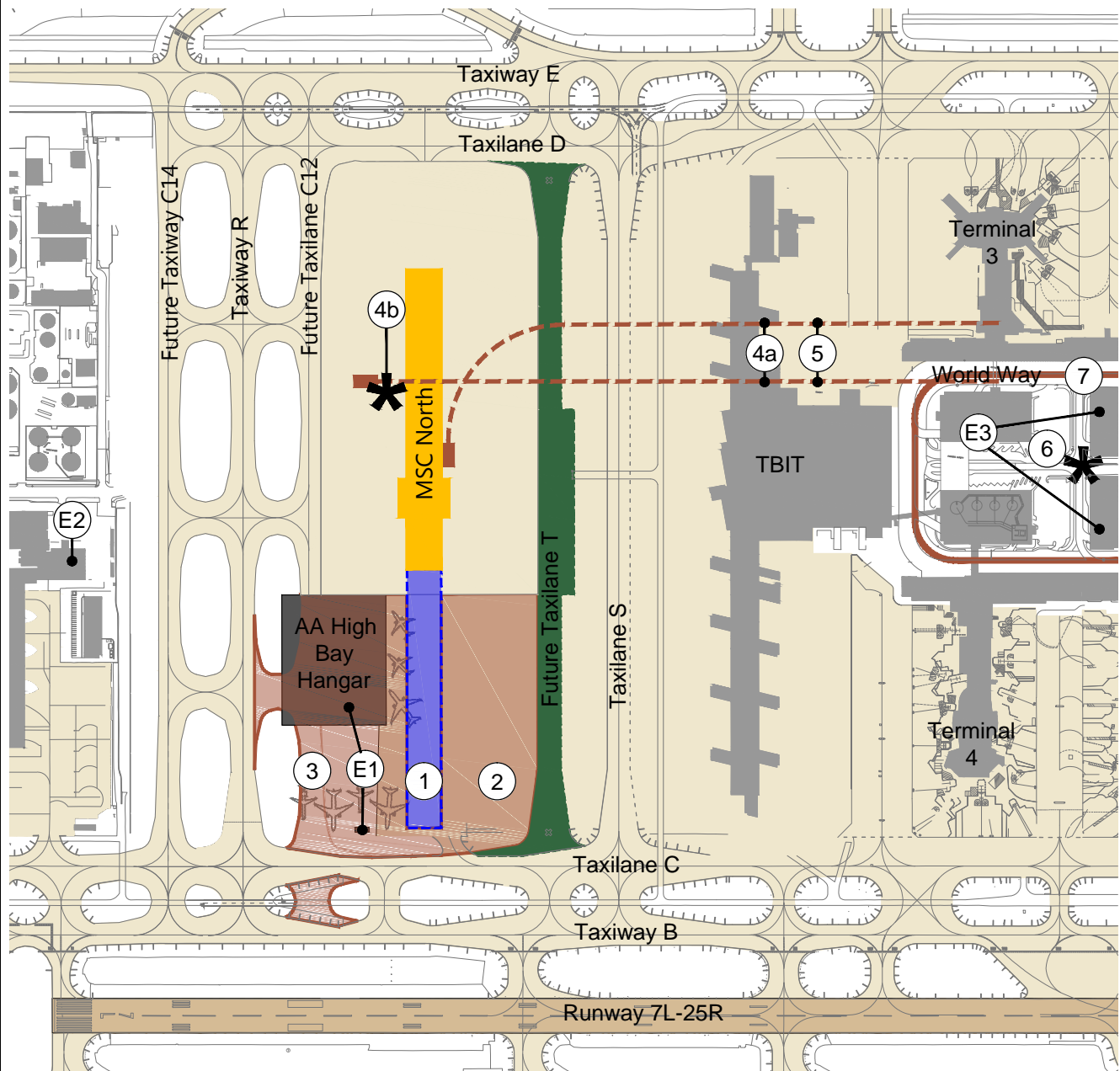
The MSC Program components that are not part of the MSC North Project have only been conceptually planned; thus, only an update of the program-level analysis of these components presented in the certified LAX Master Plan EIR is possible. For those MSC Program components receiving only programmatic environmental review in the MSC EIR, further project-level environmental review under CEQA will be required in the future before they can be implemented. Project-level environmental documents for future phase(s) of the MSC Program will be initiated at such time as LAWA determines that they are needed.

Components associated with the future phase(s) of the MSC Program include: 1) southerly extension of MSC Program concourse and associated facilities; 2) southerly extension of Taxiway C12; 3) automated people mover (APM) 4) APM maintenance facility, 5) utilities that support the future phase(s) of the MSC Program; and 6) Central Terminal Processor.

Enabling projects that may be required for the future phase(s) of the MSC Program include: E1) demolition of the American Airlines High Bay Hangar and American Airlines maintenance shed; E2) additional utility plant; and E3) relocation and demolition of parking garages P2B and P5.

Components of the future phase(s) of the MSC Program are shown in **Figure 5**.

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| ① Concourse | ④b Automated People Mover Maintenance Facility | Ⓔ Demolition of American Airlines High Bay Hangar and Maintenance Shed |
| ② Aircraft Apron | ⑤ Utilities | Ⓔ Additional Utility Plant |
| ③ Taxilane C12 | ⑥ Central Terminal Processor | Ⓔ Demolition of Parking Garages P2B and P5 |
| ④a Automated People Mover & Baggage Handling System | ⑦ Roadway Modifications to World Way | |



Notes:

Component numbers 4a, 4b, 5, and 6 represent approximate locations of project components.
Taxilane T will be constructed in 2013.



Source: HNTB, Corp., Los Angeles International Draft ALP, July 2012; Ricondo & Associates, Inc., August 2013.
Prepared by: Ricondo & Associates, Inc., August 2013.

Legend

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| Existing Taxiway and Apron Pavement | |
| Existing Runway Pavement | |
| Existing Airfield Building | |
| Taxilane T Project Area | |
| Project Components | |
| Program Components | |

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1.4 Pollutants of Interest

1.4.1 Criteria Pollutants

Six criteria pollutants were evaluated for the proposed MSC North Project and future phase(s) of the MSC Program, including ozone (O_3) using as surrogates volatile organic compounds (VOCs)¹ and oxides of nitrogen (NO_x), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers ($PM_{2.5}$). These pollutants were analyzed because they were shown to have potentially significant impacts in the air quality analysis documented in Chapter 4.6, *Air Quality*, of the Los Angeles International Airport (LAX) Master Plan Final EIR.² In addition, these six criteria pollutants are considered to be pollutants of concern based on the type of emission sources associated with construction and operation of the proposed MSC North Project and future phase(s) of the MSC Program, and are thus included in this assessment. Although lead (Pb) is a criteria pollutant, it was not evaluated in the Air Quality or Greenhouse Gas Emission chapters of this EIR because the proposed MSC North Project and future phase(s) of the MSC Program would have negligible impacts on Pb levels in the Basin. The only source of lead emissions from LAX is from aviation gasoline (AvGas) associated with piston-engine general aviation aircraft; however, due to the low number of piston-engine general aviation aircraft operations at LAX, AvGas quantities are low and emissions from these sources would not be affected by the proposed MSC North Project and future phase(s) of the MSC Program. Sulfate compounds (e.g., ammonium sulfate) are generally not emitted directly into the air but are formed through various chemical reactions in the atmosphere; thus, sulfate is considered a secondary pollutant. All sulfur emitted by airport-related sources included in this analysis was assumed to be released and to remain in the atmosphere as SO_2 . Therefore, no sulfate inventories or concentrations were estimated.

Following standard industry practice, the evaluation of O_3 was conducted by evaluating emissions of VOCs and NO_x , which are precursors in the formation of O_3 . O_3 is a regional pollutant and ambient concentrations can only be predicted using regional photochemical models that account for all sources of precursors, which is beyond the scope of this analysis. Therefore, no photochemical O_3 modeling was conducted. Additional information regarding the six criteria pollutants that were evaluated in the air quality analysis is presented below.

1.4.1.1 Ozone (O_3)

O_3 , a component of smog, is formed in the atmosphere rather than being directly emitted from pollutant sources. O_3 forms as a result of VOCs and NO_x reacting in the presence of sunlight in

¹ The emissions of volatile organic compounds (VOC) and reactive organic gases (ROG) are essentially the same for the combustion emission sources that are considered in this EIR. This EIR will typically refer to organic emissions as VOC.

² City of Los Angeles, Final Environmental Impact Report for Los Angeles International Airport (LAX) Proposed Master Plan Improvements, April 2004, Available: http://ourlax.org/pub_finalEIR.aspx.

the atmosphere. O₃ levels are highest in warm-weather months. VOCs and NO_x are termed “O₃ precursors” and their emissions are regulated in order to control the creation of O₃.

O₃ damages lung tissue and reduces lung function. Scientific evidence indicates that ambient levels of O₃ not only affect people with impaired respiratory systems (e.g., asthmatics), but also healthy children and adults. O₃ can cause health effects such as chest discomfort, coughing, nausea, respiratory tract and eye irritation, and decreased pulmonary functions.

1.4.1.2 Nitrogen Dioxide (NO₂)

NO₂ is a reddish-brown to dark brown gas with an irritating odor. NO₂ forms when nitric oxide reacts with atmospheric oxygen. Most sources of NO₂ are man-made; the primary source of NO₂ is high-temperature combustion. Significant sources of NO₂ at airports are boilers, aircraft operations, and vehicle movements. NO₂ emissions from these sources are highest during high-temperature combustion, such as aircraft takeoff mode.

NO₂ may produce adverse health effects such as nose and throat irritation, coughing, choking, headaches, nausea, stomach or chest pains, and lung inflammation (e.g., bronchitis, pneumonia).

1.4.1.3 Carbon Monoxide (CO)

CO is an odorless, colorless gas that is toxic. It is formed by the incomplete combustion of fuels. The primary sources of this pollutant in Los Angeles County are automobiles and other mobile sources. The health effects associated with exposure to CO are related to its interaction with hemoglobin once it enters the bloodstream. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulties in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

1.4.1.4 Particulate Matter (PM₁₀) and Fine Particulate Matter (PM_{2.5})

Particulate matter consists of solid and liquid particles of dust, soot, aerosols, and other matter small enough to remain suspended in the air for a long period of time. PM₁₀ refers to particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (microns, um or μm) and PM_{2.5} refers to particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers. Particles smaller than 10 micrometers (i.e., PM₁₀ and PM_{2.5}) represent that portion of particulate matter thought to represent the greatest hazard to public health.³ PM₁₀ and PM_{2.5} can accumulate in the respiratory system and are associated with a variety of negative health effects. Exposure to particulate matter can aggravate existing respiratory conditions, increase respiratory symptoms and disease, decrease long-term lung function, and possibly cause premature death. The segments of the population that are most sensitive to the negative effects of particulate matter in the air are the elderly, individuals with cardiopulmonary disease, and children. Aside from adverse health effects, particulate matter in the air causes a reduction of visibility and damage to paints and building materials.

³ U.S. Environmental Protection Agency, [Particle Pollution and Your Health](#), September 2003.

A portion of the particulate matter in the air comes from natural sources such as windblown dust and pollen. Man-made sources of particulate matter include fuel combustion, automobile exhaust, field burning, cooking, tobacco smoking, factories, and vehicle movement on, or other man-made disturbances of, unpaved areas. Secondary formation of particulate matter may occur in some cases where gases like sulfur oxides (SO_x)⁴ and NO_x interact with other compounds in the air to form particulate matter. In the Basin, both VOCs and ammonia are also considered precursors to PM_{2.5}. Fugitive dust generated by construction activities is a major source of suspended particulate matter.

The secondary creators of particulate matter, SO_x and NO_x, are also major precursors to acidic deposition (acid rain). While SO_x is a major precursor to particulate matter formation, NO_x has other environmental effects. NO_x reacts with ammonia, moisture, and other compounds to form nitric acid and related particles. Human health concerns include effects on breathing and the respiratory system, damage to lung tissue, and premature death. Small particles penetrate into sensitive parts of the lungs and can cause or worsen respiratory disease. NO_x has the potential to change the composition of some species of vegetation in wetland and terrestrial systems, to create the acidification of freshwater bodies, impair aquatic visibility, create eutrophication of estuarine and coastal waters, and increase the levels of toxins harmful to aquatic life.

1.4.1.5 Sulfur Dioxide (SO₂)

Sulfur oxides are formed when fuel containing sulfur (typically, coal and oil) is burned, and during other industrial processes. The term "sulfur oxides" accounts for distinct but related compounds, primarily SO₂ and sulfur trioxide. As a conservative assumption for this analysis, it was assumed that all SO_x are emitted as SO₂; therefore, SO_x and SO₂ are considered equivalent in this document. Higher SO₂ concentrations are usually found in the vicinity of large industrial facilities.

The physical effects of SO₂ include temporary breathing impairment, respiratory illness, and aggravation of existing cardiovascular disease. Children and the elderly are most susceptible to the negative effects of exposure to SO₂.

1.4.2 Greenhouse Gases

Parts of the earth's atmosphere act as an insulating blanket, trapping sufficient solar energy to keep the global average temperature in a suitable range. The blanket is a collection of atmospheric gases called GHGs. These gases – primarily water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) – all act as effective global insulators, reflecting back to earth visible light and infrared radiation. Human activities, such as producing electricity and driving vehicles, have elevated the concentrations of these gases in the atmosphere. Many scientists believe that these elevated levels, in turn, are causing the

⁴ The term SO_x accounts for distinct but related compounds, primarily SO₂ and, to a far lesser degree, sulfur trioxide. As a conservative assumption for this analysis, it was assumed that all SO_x is emitted as SO₂, therefore SO_x and SO₂ are considered equivalent in this document and only the latter term is used henceforth.

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earth's temperature to rise. A warmer earth may lead to changes in rainfall patterns, much smaller polar ice caps, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans.

Climate change is driven by “forcings” and “feedbacks.” Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. A feedback is “an internal climate process that amplifies or dampens the climate response to a specific forcing.”⁵ The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere; it is the “cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas.”⁶ Individual GHG species have varying GWP and atmospheric lifetimes. The carbon dioxide equivalent (CO₂e) -- the mass emissions of an individual GHG multiplied by its GWP -- is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent metric. The reference gas for GWP is CO₂; CO₂ has a GWP of 1. Compared to CH₄'s GWP of 21, CH₄ has a greater global warming effect than CO₂ on a molecule-per-molecule basis. **Table 1-1** identifies the GWP of several select GHGs using the IPCC's Second Assessment Report.

Table 1-1

Global Warming Potentials and Atmospheric Lifetimes of Select Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100 Year Time Horizon)
Carbon Dioxide	50 - 200	1
Methane	12 ± 3	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Perfluoromethane (CF ₄)	50,000	6,500
PFC: Perfluoroethane (C ₂ F ₆)	10,000	9,200
Sulfur Hexafluoride (SF ₆)	3,200	23,900

Source: Intergovernmental Panel on Climate Change, Climate Change 1995: The Science of Climate Change. Contribution of Working Group I to the Second Assessment Report (SAR) of the Intergovernmental Panel on Climate Change, 1996.⁷

⁵ National Research Council of the National Academies, Radiative Forcing of Climate Change: Expanding the Concept and Addressing Uncertainties, 2005.

⁶ U.S. Environmental Protection Agency, Glossary of Climate Terms, Available: www.epa.gov/climatechange/glossary.html, Accessed October 10, 2013.

⁷ GWP values have been updated in IPCC's subsequent assessment reports (e.g., Third Assessment Report [TAR], etc.). However, in accordance with international and U.S. convention to maintain the value of the carbon dioxide 'currency', GHG emission inventories are calculated using the GWPs from the IPCC SAR.

2.0 REGULATORY SETTING

Air quality is regulated by federal, State, and local laws. On the federal level, air quality is governed by the federal Clean Air Act (CAA) administered by the United States Environmental Protection Agency (USEPA). Additionally, air quality in California is governed by regulations under the California Clean Air Act (CCAA) administered by the California Air Resources Board (CARB) and by the regional air quality management districts. Air quality in the Los Angeles region is subject to the rules and regulations established by CARB and the South Coast Air Quality Management District (SCAQMD).

Greenhouse Gas emissions are primarily regulated on the State and local level with some federal regulations concerning GHG and fuel efficiency standards for passenger cars, light-duty trucks, and medium- and heavy-duty engines and vehicles from USEPA and the National Highway Traffic Safety Administration. Various international, federal, State, and local agencies also provide guidance concerning GHG emissions.

2.1 Federal/International

2.1.1 Criteria Pollutants

The USEPA is responsible for enforcing the CAA. Under the authority granted by the CAA, USEPA has established National Ambient Air Quality Standards (NAAQS) for the following criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), respirable particulate matter or particulate matter sized 10 microns or less (PM₁₀), fine particulate matter or particulate matter sized 2.5 microns or less (PM_{2.5}), sulfur dioxide (SO₂), and lead (Pb). **Table 2-1** presents the NAAQS that are currently in effect for criteria air pollutants. O₃ is a secondary pollutant, meaning that it is formed from reactions of precursor compounds under certain conditions. The primary precursor compounds that can lead to the formation of O₃ include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x).

The CAA also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones.

LAX is located within the South Coast Air Basin (Basin), which is a sub-region of the South Coast Air Quality Management District's (SCAQMD's) jurisdiction including all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is designated as a federal non-attainment area for O₃, PM_{2.5}, and Pb. The nonattainment designation under the CAA for O₃ is categorized into levels of severity based on the level of concentration above the standard, which is also used to set the required attainment date. The Basin is classified as an extreme nonattainment area for O₃. The Basin was reclassified on September 22, 1998 to attainment/maintenance for NO₂ and on June 11, 2007 for CO since

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concentrations of these pollutants dropped below the NO₂ and CO NAAQS for several years. More recently, the Los Angeles Basin was reclassified to attainment/maintenance for PM₁₀ on July 26, 2013. Attainment/maintenance means that the pollutant is currently in attainment and that measures are included in the SIP to ensure that the NAAQS for that pollutant are not exceeded again (maintained). **Table 2-2** presents the NAAQS and CAAQS attainment designation for each of the federal criteria air pollutants.

Table 2-1
National and California Ambient Air Quality Standards (NAAQS and CAAQS)

Pollutant	Averaging Time	CAAQS	NAAQS	
			Primary	Secondary
Ozone (O ₃)	8-hour	0.07 ppm (137 µg/m ³)	0.075 ppm (147 µg/m ³)	Same as Primary
	1-Hour	0.09 ppm (180 µg/m ³)	N/A	N/A
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)	N/A
	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	N/A
Nitrogen Dioxide (NO ₂)	Annual	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
	1-Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	N/A ¹
Sulfur Dioxide (SO ₂) ²	Annual	N/A	0.03 ppm (80 µg/m ³)	N/A
	24-Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	N/A
	3-Hour	N/A	N/A	0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	N/A
Respirable Particulate Matter (PM ₁₀)	AAM	20 µg/m ³	N/A	N/A
Fine Particulate Matter (PM _{2.5})	24-Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	12 µg/m ³	15 µg/m ³	Same as Primary
Lead (Pb)	24-Hour	N/A	35 µg/m ³	Same as Primary
	Rolling 3-month Average	N/A	1.5 µg/m ³	Same as Primary
Sulfates	Monthly	1.5 µg/m ³	N/A	N/A
	24-Hour	25 µg/m ³	N/A	N/A

Notes:

NAAQS = National Ambient Air Quality Standards
CAAQS = California Ambient Air Quality Standards
ppm = parts per million (by volume)
µg/m³ = micrograms per cubic meter

N/A = Not applicable
mg/m³ = milligrams per cubic meter
AAM = Annual arithmetic mean

¹ On March 20, 2012, the USEPA took final action to retain the current secondary NAAQS for NO₂ (0.053 ppm averaged over a year) and SO₂ (0.5 ppm averaged over three hours, not to be exceeded more than once per year) (77 Federal Register [FR] 20264).

² On June 22, 2010, the 1-hour SO₂ NAAQS was updated and the previous 24-hour and annual primary NAAQS were revoked. The previous 1971 SO₂ NAAQS (24-hour: 0.14 ppm; annual: 0.030 ppm) remain in effect until one year after an area is designated for the 2010 NAAQS (75 FR 35520).

Source: California Air Resources Board, Ambient Air Quality Standards Chart, Available:
<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

Table 2-2

South Coast Air Basin Attainment Status

Pollutant	National Standards (NAAQS)¹	California Standards (CAAQS)²
Ozone	Nonattainment - Extreme	Nonattainment
Carbon Monoxide	Attainment - Maintenance	Attainment
Nitrogen Dioxide	Attainment - Maintenance	Nonattainment
Sulfur Dioxide	Attainment	Attainment
PM ₁₀	Attainment – Maintenance	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
Lead	Nonattainment	Nonattainment

Note:

¹ Status as of July 31, 2013.

² Effective April 1, 2013.

Sources: U.S. Environmental Protection Agency. Green Book. Available at <http://www.epa.gov/air/oaqps/greenbook/index.html>. As of July 31, 2013; California Air Resources Board. "Area Designations Maps/State and National." Available at www.arb.ca.gov/desig/adm/adm.htm. Effective 04/01/1013.

2.1.1 Greenhouse Gases

International Governmental Panel on Climate Change (IPCC)

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess "the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation."

United Nations Framework Convention on Climate Change

On March 21, 1994, the U.S. joined other countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol

The Kyoto Protocol is a treaty made under the UNFCCC. Countries can sign the treaty to demonstrate their commitment to reduce their emissions of GHGs or engage in emissions trading. More than 160 countries, accounting for 55 percent of global emissions, are under the protocol. The U.S. symbolically signed the Protocol in 1998. However, in order for the Protocol to be formally ratified, it must be adopted by the U.S. Senate, which has not been done to date. The original GHG reduction commitments made under the Protocol expired at the end of 2012.

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A second commitment period was agreed to at the Doha, Qatar, meeting held December 8, 2012, which extended the commitment period to December 31, 2020.

Massachusetts et al. v. United States Environmental Protection Agency et al.

Massachusetts et. al. v. Environmental Protection Agency et. al. (549 U.S. 497 [2007]) was argued before the U.S. Supreme Court on November 29, 2006, in which it was petitioned that USEPA regulate four GHGs, including CO₂, under Section 202(a)(1) of the Clean Air Act (CAA). The Court issued an opinion on April 2, 2007, in which it held that petitioners have standing to challenge the USEPA and that the USEPA has statutory authority to regulate emissions of GHGs from motor vehicles.

Endangerment Finding

The USEPA subsequently published its endangerment finding for GHGs in the Federal Register,⁸ which responds to the court case noted above. The USEPA Administrator determined that six GHGs, taken in combination, endanger both the public health and welfare of current and future generations. Although the endangerment finding discusses the effects of six GHGs, it acknowledges that transportation sources only emit four of the key GHGs: CO₂, CH₄, N₂O, and HFCs. Further, the USEPA Administrator found that the combined emissions of these GHGs from new motor vehicles contribute to air pollution that endangers the public health and welfare under the CAA, Section 202(a).

GHG and Fuel Efficiency Standards for Passenger Cars and Light-Duty Trucks

In April 2010, the USEPA and National Highway Traffic Safety Administration (NHTSA) finalized GHG standards for new (model year 2012 through 2016) passenger cars, light-duty trucks, and medium-duty passenger vehicles. Under these standards, CO₂ emission limits would decrease from 295 grams per mile (g/mi) in 2012 to 250 g/mi in 2016 for a combined fleet of cars and light trucks. If all of the necessary emission reductions were made from fuel economy improvements, then the standards would correspond to a combined fuel economy of 30.1 miles per gallon (mpg) in 2012 and 35.5 mpg in 2016. The agencies issued a joint Final Rule for a coordinated National Program for model years 2017 to 2025 light-duty vehicles on August 28, 2012, that would correspond to a combined fuel economy of 36.6 mpg in 2017 and 54.5 mpg in 2025.

⁸ U.S. Environmental Protection Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the CAA, Federal Register 74 (15 December 2009): 66496-66546.

GHG and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles

In October 2010, the USEPA and NHTSA announced a program to reduce GHG emissions and to improve fuel efficiency for medium- and heavy-duty vehicles (model years 2014 through 2018). These standards were signed into law on August 9, 2011. The two agencies' complementary standards form a new Heavy-Duty National Program that has the potential to reduce GHG emissions by 270 million metric tons and to reduce oil consumption by 530 million barrels over the life of the affected vehicles.

2.2 State of California

2.2.1 Criteria Pollutants

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS are at least as stringent as, and in several cases more stringent than, the NAAQS and include several more pollutants such as visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The currently applicable CAAQS are presented with the NAAQS in Table 2-1. The attainment status with regard to the CAAQS is presented in Table 2-2 along with the federal attainment status for each criteria pollutant. Additionally, the area is in attainment for sulfates and unclassified for hydrogen sulfide and visibility reducing particles.

California Air Resources Board (CARB) has been granted jurisdiction over a number of air pollutant emission sources that operate in the State. Specifically, CARB has the authority to develop emission standards for on-road motor vehicles, as well as for stationary sources and some off-road mobile sources. In turn, CARB has granted authority to the regional air pollution control and air quality management districts to develop stationary source emission standards, issue air quality permits, and enforce permit conditions.

2.2.2 Greenhouse Gases

California Air Resources Board

In October 2008, CARB published draft preliminary guidance to agencies on how to establish interim significance thresholds for analyzing GHG emissions in Recommended Approaches for Setting Interim Thresholds for Greenhouse Gases under the California Environmental Quality Act. For industrial projects, the CARB guidance proposed that projects that emit less than 7,000 metric tons of CO₂e (MTCO₂e) per year (amortized), as well as meeting performance standards for construction and transportation, may be considered less than significant.

Title 24 Energy Standards

Although not originally intended to reduce GHG emissions, California's Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24,

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Part 6) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. The latest amendments were made in April 2008 and went into effect on January 1, 2010. The premise for the standards is that 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. Therefore, increased energy efficiency in buildings results in fewer GHG emissions on a building-by-building basis.

California Assembly Bill 1493 (AB 1493) - Pavley

Enacted on July 22, 2002, this bill required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Regulations adopted by CARB apply to 2009 and later model year vehicles. CARB estimates that the regulation will reduce GHG emissions from the light-duty and passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030, compared to recent years. In 2011, the U.S. Department of Transportation, USEPA, and California announced a single timeframe for proposing fuel and economy standards, thereby aligning the Pavley standards with the federal standards for passenger cars and light-duty trucks. Emission estimates included in this analysis account for the Pavley-I standards.

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets for all of California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

California Assembly Bill 32 (AB 32)

AB 32, titled The California Global Warming Solutions Act of 2006 and signed by Governor Schwarzenegger in September 2006, requires CARB to adopt regulations to require the reporting and verification of Statewide GHG emissions and to monitor and enforce compliance with the program. In general, the bill requires CARB to reduce Statewide GHG emissions to the equivalent of those in 1990 by 2020. CARB adopted regulations in December 2007 for mandatory GHG emissions reporting. On August 24, 2011, CARB adopted the scoping plan indicating how emission reductions will be achieved. Part of the scoping plan includes an economy-wide cap-and-trade program. The final cap-and-trade plan was approved on October 21, 2011 and went into effect on January 1, 2013.

California Senate Bill 375 (SB 375)

SB 375 requires CARB to set regional targets for 2020 and 2035 to reduce GHG emissions from passenger vehicles. A regional target will be developed for each of the 18 metropolitan planning organizations (MPOs) in the State; the Southern California Association of Governments (SCAG) is the MPO that has jurisdiction over the LAX area. A Regional Targets Advisory Committee (RTAC) was appointed by CARB to provide recommendations to be

considered and methodologies to be used in CARB's target setting process. The final RTAC report was released on January 23, 2009.

Each MPO is required to develop Sustainable Community Strategies through integrated land use and transportation planning and to demonstrate an ability to attain the proposed reduction targets by 2020 and 2035. CARB issued an eight percent per capita reduction target to the SCAG region for 2020 and a target of 13 percent per capita reduction by 2035. SCAG adopted the Regional Transportation Plan/Sustainable Community Strategies for the six-county southern California region on April 4, 2012.

Executive Order S-01-07 and the Low Carbon Fuel Standard

California Executive Order S-01-07 established a Statewide goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020 from 2005. The Executive Order also mandated the creation of Low Carbon Fuel Standard (LCFS) for transportation fuels. The LCFS requires that the life-cycle GHG emissions for the mix of fuels sold in California decline on average. Each fuel provider may meet the standard by selling fuel with lower carbon content, using previously banked credits from selling fuel that exceeded the LCFS, or purchasing credit from other fuel providers who have earned credits. On December 29, 2011, U.S. District Judge Lawrence O'Neill granted an injunction to prevent CARB from implementing the LCFS because it violates a federal law on interstate commerce. CARB's motion to stay the decision was also subsequently denied on January 24, 2012 (*Rocky Mountain Farmers Union v. Goldstene*, E.D. Cal., No. 09-cv-02234).

Senate Bill 97 (SB 97)

SB 97 requires the Office of Planning and Research (OPR) to prepare guidelines to submit to the California Natural Resources Agency (CNRA) regarding feasible mitigation of GHG emissions or the effects of GHG emissions as required by CEQA. The CNRA adopted amendments to the State CEQA Guidelines for GHG emissions on December 30, 2009. The amendments became effective on March 18, 2010. The guidelines apply retroactively to any incomplete EIR, negative declaration, mitigated negative declaration, or other related document, and are reflected in this EIR.

Renewables Portfolio Standard

Senate Bill 1078 (SB 1078) (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, the Governor signed Executive Order S-14-08, which expands the State's Renewable (Energy) Portfolio Standard (RPS) to 33 percent renewable power by 2020. On September 15, 2009, the Governor issued Executive Order S-21-0911 requiring CARB, under its AB 32 authority, to adopt regulations to meet a 33 percent RPS target by 2020. The CARB regulations would use a phased-in or tiered requirement to increase the amount of electricity from eligible renewable sources over an eight year period beginning in 2012. CARB adopted the regulations in September 2010. In March 2011, the Legislature passed SB X1-2, which was signed into law by the Governor the following

month. SB X1-2 requires utilities to procure renewable energy products equal to 33 percent of retail sales by December 31, 2020 and also establishes interim targets: 20 percent by December 31, 2013 and 25 percent by December 31, 2016. SB X1-2 also applies to publicly-owned utilities in California. According to the most recent data available from the Los Angeles Department of Water and Power (LADWP), the utility provider for the City of Los Angeles, approximately 19 percent of its electricity purchases in 2011 were from eligible renewable sources.

2.3 Regional

2.3.1 Criteria Pollutants

South Coast Air Quality Management District

SCAQMD has jurisdiction over an area of 10,743 square miles consisting of Orange County and the urban, non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and the Riverside County portions of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin is a sub-region of SCAQMD's jurisdiction and covers an area of 6,745 square miles. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS. SCAQMD and CARB have adopted the 2012 AQMP which incorporates the latest scientific and technological information and planning assumptions, including the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and updated emission inventory methodologies for various source categories.⁹ The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012. Therefore, the 2012 AQMP is the most appropriate plan to use for consistency analysis. The AQMP builds upon other agencies' plans to achieve federal standards for air quality in the Basin. It incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2012 AQMP builds upon improvements in previous plans, and includes new and changing federal requirements, implementation of new technology measures, and the continued development of economically sound, flexible compliance approaches. In addition, it highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal CAA.

The 2012 AQMP's key undertaking is to bring the Basin into attainment with NAAQS for 24-hour PM_{2.5} by 2014. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2023 8-hour O₃ standard deadline with new measures designed to reduce reliance on the CAA Section 182(e)(5) long-term measures for NO_x and VOC

⁹ <http://www.aqmd.gov/aqmp/2012aqmp/index.htm>

reductions. SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2012 AQMP consist of four components: 1) Basin-wide and Episodic Short-term PM_{2.5} Measures; 2) Contingency Measures; 3) 8-hour O₃ Implementation Measures; and 4) Transportation and Control Measures provided by the Southern California Association of Governments (SCAG). The Plan includes eight short-term PM_{2.5} control measures, 16 stationary source 8-hour O₃ measures, 10 early action measures for mobile sources and seven early action measures are proposed to accelerate near-zero and zero emission technologies for goods movement related sources, and five on-road and five off-road mobile source control measures. In general, the District's control strategy for stationary and mobile sources is based on the following approaches: 1) available cleaner technologies; 2) best management practices; 3) incentive programs; 4) development and implementation of zero-near-zero technologies and vehicles and control methods; and 5) emission reductions from mobile sources.

The SCAQMD also adopts rules to implement portions of the AQMP. At least one of these rules is applicable to the construction phase of the proposed Project. Rule 403 requires the implementation of best available fugitive dust control measures during active construction activities capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. Also, SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents, which lowers the emissions of odorous compounds.

The SCAQMD has developed CEQA operational and construction-related thresholds of significance for air pollutant emissions from projects proposed in the Basin. Construction and operational emission thresholds are summarized in **Table 2-3**.

The SCAQMD has also developed operational and construction-related thresholds of significance for air pollutant concentration impacts from projects proposed in the Basin. These thresholds are summarized in **Table 2-4**. The SCAQMD's recommended thresholds for the evaluation of localized air quality impacts are based on the difference between the maximum monitored ambient pollutant concentrations in the area and the CAAQS or NAAQS. Therefore, the thresholds depend upon the concentrations of pollutants monitored locally with respect to a project site. For pollutants that already exceed the CAAQS or NAAQS (e.g., PM₁₀ and PM_{2.5}), the thresholds are based on SCAQMD Rule 403 for construction and Rule 1303, Table A-2 for operations as described in the *Final Localized Significance Threshold Methodology*.

The methodology requires that the anticipated increase in ambient air concentrations, determined using a computer-based air quality dispersion model, be compared to localized significance thresholds for PM₁₀, PM_{2.5}, NO₂, and CO.¹⁰ The significance threshold for PM₁₀ represents compliance with Rule 403 (Fugitive Dust) and Rule 1303 (New Source Review Requirements), while the thresholds for NO₂ and CO represent the allowable increase in concentrations above background levels in the vicinity of the Project site that would not cause or contribute to an exceedance of the relevant ambient air quality standards. The significance thresholds for PM_{2.5} are intended to constrain emissions so as to aid in the progress toward

¹⁰ South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, (2008).

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attainment of the ambient air quality standards.¹¹ For the purposes of this analysis, the localized construction and operations emissions resulting from development of the proposed MSC North Project were assessed with respect to the thresholds in Table 2-4 using detailed dispersion modeling.

Table 2-3

**SCAQMD CEQA Thresholds of Significance for
Air Pollutant Emissions in the South Coast Air Basin**

Pollutant	Mass Emission Thresholds lbs/day	
	Construction	Operations
Carbon monoxide, CO	550	550
Volatile organic compounds, VOC ¹	75	55
Nitrogen oxides, NOx	100	55
Sulfur dioxide, SO ₂	150	150
Inhalable particulate matter, PM ₁₀	150	150
Fine particulate matter, PM _{2.5}	55	55
Lead, Pb ²	3	3

Notes:

¹ The emissions of VOCs and reactive organic gases are essentially the same for the combustion emission sources that are considered in this EIR. This EIR will typically refer to organic emissions as VOCs.

² The only source of lead emissions from LAX is from aviation gasoline (AvGas) associated with piston-engine general aviation aircraft; however, due to the low number of piston-engine general aviation aircraft operations at LAX, AvGas quantities are low and emissions from these sources would not be materially affected by the Project.

Source: South Coast Air Quality Management District, "SCAQMD Air Quality Significance Thresholds," March 2011. Available: www.aqmd.gov/ceqa/handbook/signthres.pdf, Accessed October 28, 2013.

¹¹ South Coast Air Quality Management District, Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, (2006).

Table 2-4

**SCAQMD CEQA Thresholds of Significance for Air Pollutant
Concentrations in the South Coast Air Basin**

Pollutant	Averaging Period	Project-Related Concentration Thresholds		
		Construction	Operations	Project Only or Total
PM ₁₀	Annual	1.0 µg/m ³	1.0 µg/m ³	Project Only
PM ₁₀	24-hour	10.4 µg/m ³	2.5 µg/m ³	Project Only
PM _{2.5}	24-hour	10.4 µg/m ³	2.5 µg/m ³	Project Only
CO	1-hour	20 ppm (23 mg/m ³)	20 ppm (23 mg/m ³)	Total incl. Background
CO	8-hour	9.0 ppm (10 mg/m ³)	9.0 ppm (10 mg/m ³)	Total incl. Background
NO ₂	1-hour (State)	0.18 ppm (339 µg/m ³)	0.18 ppm (339 µg/m ³)	Total incl. Background
NO ₂	1-hour (Federal) ³	0.100 ppm (188 µg/m ³)	0.100 ppm (188 µg/m ³)	Total incl. Background
NO ₂	Annual (State) ²	0.030 ppm (57 µg/m ³)	0.030 ppm (57 µg/m ³)	Total incl. Background
SO ₂	1-hour (State)	0.25 ppm (655 µg/m ³)	0.25 ppm (655 µg/m ³)	Total incl. Background
SO ₂	1-hour (Federal) ⁴	0.075 ppm (196 µg/m ³)	0.075 ppm (196 µg/m ³)	Total incl. Background
SO ₂	24-hour	0.04 ppm (105 µg/m ³)	0.04 ppm (105 µg/m ³)	Total incl. Background

Notes:

¹ The concentration threshold for CO and NO₂ is the CAAQS, which is at least as stringent as the NAAQS. The concentration threshold for PM₁₀ and PM_{2.5} has been developed by SCAQMD for construction or operational impacts associated with the proposed Project.

² The state standard is more stringent than the federal standard.

³ To evaluate impacts of the proposed Project to ambient 1-hour NO₂ levels, the analysis includes both the current SCAQMD 1-hour state NO₂ threshold and the more stringent revised 1-hour federal ambient air quality standard of 188 µg/m³. To attain the federal standard, the 3-year average of 98th percentile of the daily maximum 1-hour average at a receptor must not exceed 0.100 ppm.

⁴ To attain the SO₂ federal 1-hour standard, the 3-year average of the 99th percentile of the daily maximum 1-hour averages at a receptor must not exceed 0.075 ppm.

Source: SCAQMD, 1993, 2011; USEPA, 2010a (75 FR 6474, Primary National Ambient Air Quality Standards for Nitrogen Dioxide, Final Rule, February 9, 2010) and 2010b (75 FR 35520, Primary National Ambient Air Quality Standard for Sulfur Dioxide, Final Rule, June 22, 2010).

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the metropolitan planning organization (MPO) representing six counties, including Los Angeles, and serving as a forum for the discussion of various planning and policy initiatives. As the federally designated MPO for the southern California region, SCAG is mandated by the federal government to research and develop plans for transportation, hazardous waste management, growth management, and air quality. Under the federal CAA, SCAG is also responsible for determining conformity of transportation projects, plans, and programs with applicable air quality plans.

2.3.2 Greenhouse Gases

South Coast Air Quality Management District

The SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to the SCAQMD staff on developing GHG CEQA significance thresholds.

SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds in October 2008 and adopted this proposal in December 2008. SCAQMD proposed a tiered approach, whereby the level of detail and refinement needed to determine significance increases with a project's total GHG emissions. SCAQMD also proposed a screening level of 10,000 MTCO₂e per year for industrial projects and 3,000 MTCO₂e per year for residential and commercial projects, under which project impacts are considered "less than significant." The 10,000 MTCO₂e per year screening level was intended to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the industrial sector; similarly, the 3,000 MTCO₂e per year screening level was intended to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the residential and commercial sector.¹² For projects with GHG emissions increases greater than 10,000 MTCO₂e per year (for industrial projects) or 3,000 MTCO₂e (for residential and commercial projects), the use of a percent emission reduction target (e.g., 30 percent) was proposed to determine significance. This emission reduction target is a reduction below what is considered "business as usual." As noted earlier, SCAQMD also proposes that projects amortize construction emissions over the 30-year lifetime of any given project for comparison relative to these thresholds. Proposed project construction emissions can be amortized by calculating total construction period emissions and dividing by the 30-year lifetime of the project.

The interim GHG significance threshold is for projects where the SCAQMD is lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies.

2.4 Local Regulations and Directives

2.4.1 Criteria Pollutants

City of Los Angeles

The City of Los Angeles CEQA significance thresholds applicable to the MSC North Project and/or future phase(s) of the MSC Program, as it pertains to criteria pollutant emissions, are shown in **Table 2-5**.

¹² South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, (2008).

Table 2-5
City of LA CEQA Significance Thresholds

CEQA Subcategory	CEQA Significance Threshold
Construction Emissions	<p>Would site preparation or construction activities for the proposed project result in substantial emissions that would not be controlled on site by existing regulations?</p> <p>Considers:</p> <ul style="list-style-type: none"> Combustion Emissions from Construction Equipment Fugitive Dust Grading, Excavation and Hauling Heavy-Duty Equipment Travel on Unpaved Roads Other Mobile Source Emissions
Operational Emissions	<ul style="list-style-type: none"> Result in a development and/or activity level equal to or greater than the thresholds provided in the CEQA Air Quality Handbook's Screening Table for Operation – Daily Thresholds of Potential Significance for Air Quality? Conflict with the regional population forecast and distribution in the most recent Air Quality Management Plan (AQMP)? Have the potential to create or be subjected to an objectionable odor or localized CO hot spot that could impact sensitive receptors? <p>Operational emissions exceed any of the daily thresholds presented in Table 2-3.</p> <ul style="list-style-type: none"> Causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively, at an intersection or roadway within 1/4 mile of a sensitive receptor.

Source: City of Los Angeles, L.A. CEQA Thresholds Guide, 2006.

2.4.2 Greenhouse Gases

Green LA

In May 2007, the City of Los Angeles introduced *Green LA - An Action Plan to Lead the Nation in Fighting Global Warming* (Green LA).¹³ Green LA presents a framework targeted to reduce the City's GHG emissions by 35 percent below 1990 levels by 2030. The plan calls for an increase in the City's use of renewable energy to 35 percent by 2020 in combination with promoting water conservation, improving the transportation system, reducing waste generation, greening the ports and airports, creating more parks and open space, and greening the economic sector. Green LA identifies objectives and actions in various focus areas, including airports. The goal for LA's airports is to "green the airports," and the following actions are

¹³ City of Los Angeles, Green LA - An Action Plan to Lead the Nation in Fighting Global Warming, 2007.

identified: 1) fully implement the Sustainability Performance Improvement Management System (discussed below); 2) develop and implement policies to meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) green building rating standards in future construction; 3) improve recycling, increase use of alternative fuel sources, increase use of recycled water, increase water conservation, reduce energy needs, and reduce GHG emissions; and 4) evaluate options to reduce aircraft-related GHG emissions.

Climate LA

In 2008, the City of Los Angeles followed up Green LA with an implementation plan called *Climate LA - Municipal Program Implementing the Green LA Climate Action Plan* (Climate LA).¹⁴ A Departmental Action Plan for LAWA is included in Climate LA, which identifies goals to reduce CO₂ emissions 35 percent below 1990 levels by 2030 at LAX and the other three LAWA airports, implement sustainability practices, and develop programs to reduce the generation of waste and pollutants. Actions are specified in the areas of aircraft operations, ground vehicles, electrical consumption, building, and other actions.

City of Los Angeles Green Building Code (LAGBC)

In December 2010, the Los Angeles City Council approved Ordinance No. 181,481, which amended Chapter IX of the Los Angeles Municipal Code (LAMC) by adding a new Article 9 to incorporate various provisions of the 2010 CALGreen Code. The requirements of the adopted LAGBC apply to new building construction, building renovations, and building additions within the City of Los Angeles. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Key measures in the LAGBC that apply to nonresidential buildings include, but are not limited to, the following:

- Construction – A Storm Water Pollution Prevention Plan conforming to the State Storm Water National Pollutant Discharge Elimination System Construction Permit or local ordinance, whichever is stricter, is required for a project regardless of acreage disturbed;
- Construction – Construction waste reduction of at least 50 percent of construction debris;
- Construction – 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled;
- Transportation Demand – Designated parking for any combination of low emitting, fuel-efficient, and carpool/vanpool vehicles shall be provided;
- Energy Conservation – Electric vehicle supply wiring for a minimum of 5 percent of the total number of parking spaces shall be provided;

¹⁴ City of Los Angeles, *Climate LA - Municipal Program Implementing the Green LA Climate Action Plan*, 2008.

- Energy Conservation – Energy conservation for new buildings must exceed California Energy Commission (CEC) requirements, based on the 2008 Energy Efficiency Standards, by 15 percent using an Alternative Calculation Method approved by the CEC;
- Energy Conservation – Each appliance provided and installed shall meet Energy Star requirements, if an Energy Star designation is applicable for that appliance;
- Renewable Energy – Future access, off-grid prewiring, and space for electrical solar systems shall be provided;
- Water – A schedule of plumbing fixtures and fixture fittings shall be provided that will reduce the overall use of potable water within the building by at least 20 percent based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code; and
- Wastewater – Each building shall reduce wastewater by 20 percent based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

LAWA Sustainability Plan

LAWA's Sustainability Plan, developed in April 2008, describes LAWA's current sustainability practices and sets goals and actions that LAWA will undertake to implement the initiatives described above (Green LA, Climate LA, and LAGBC).¹⁵ The Sustainability Plan presents initiatives for the fiscal year 2008-2009 and long-term objectives and targets to meet the fundamental objectives identified above.

LAWA has also developed the *Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects* (LAWA Guidelines).¹⁶ The LAWA Guidelines were developed to provide a comprehensive set of performance standards focusing on sustainability specifically for Airport projects on a project-level basis. A portion of the LAWA Guidelines is based on the LEED® rating systems for buildings. The LAWA Guidelines incorporate a "LAWA-Sustainable Rating System" based on the number of planning and design points and construction points a project achieves, based on the criteria and performance standards defined in the LAWA Guidelines.

Based on the above, LAWA has taken steps to increase its sustainability practices related to daily Airport operations, many of which directly or indirectly contribute to a reduction in GHG emissions. Actions that LAWA has been undertaking include promoting and expanding the Fly Away non-stop shuttle service to the Airport in an effort to reduce the number of vehicle trips to the Airport, establishment of an employee Rideshare Program, use of alternative fuel vehicles, purchasing renewably generated Green Power from LADWP, and reducing electricity

¹⁵ Los Angeles World Airports, Sustainability Plan, April 2008.

¹⁶ Los Angeles World Airports, Sustainable Airport Planning, Design and Construction Guidelines for Implementation on All Airport Projects, February 2010.

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consumption by installing energy-efficient lighting, variable demand motors on terminal escalators, and variable frequency drives on fan units at terminals and LAWA buildings.

LAWA defines sustainability (and measures sustainable performance) as the Triple Bottom Line, consistent with the Global Reporting Initiative (GRI) and CEQA, which are the social, economic, and environmental impacts of its organization. All projects are subject to various sustainable requirements in the City of Los Angeles and at LAWA, including, but not limited to:

- LAGBC (Ordinance 181479);
- Low Impact Development (Ordinance 181899);
- Standard Urban Stormwater Mitigation Plan (Ordinance 173494);
- Demolition Debris Recycling Program (Ordinance 181519);
- LAX Construction & Maintenance Services – Recycling Program; and
- LAX Master Plan – Mitigation Monitoring and Reporting Program (MMRP). Highlights of the LAX Master Plan MMRP include, but are not limited to the following measures:
 - C-1: Work with LAWA to approve and coordinate staging areas, haul routes, etc.;
 - MM-AQ-2: Utilize on-site rock-crushing facility, when feasible, during construction to reuse rock/concrete and minimize off-site truck-haul trips; and
 - W-1: Maximize use of Reclaimed Water.

All building projects in the City of Los Angeles are subject to the LAGBC, which is based on CALGreen with some modifications unique to the City of Los Angeles. The LAGBC is a code-requirement that is part of Title 24, and is enforced by the Los Angeles Department of Building & Safety (LADBS).

Given that the LAGBC has replaced LEED® in the Los Angeles Municipal Code, LAWA has based its new sustainable construction standards on the mandatory and voluntary tiers defined in the LAGBC. All building projects with an LADBS permit-valuation over \$200,000 shall achieve LAGBC Tier 1 conformance, to be certified by LADBS during final plan check (on the issued building permit) and validated by the LADBS inspector during final inspection (on the Certificate of Occupancy). Tier 1 refers specific practices that are to be incorporated into projects to “achieving enhanced construction levels by incorporating additional green building measures.” Should a project pose unique issues/circumstances based on the scope and/or location of work, LAWA may require more prescriptive approaches to resolving issues such as energy performance, site drainage, etc.

For tenant projects, the permittee/tenant shall submit copies of all LADBS Green Building Forms to the LAWA Project Manager prior to issuance of a Notice-to-Proceed. This information may be published in LAWA’s Annual Sustainability Reports in accordance with the GRI Sustainability Reporting Guidelines and Airport Operators Sector Supplement.

3.0 EXISTING ENVIRONMENTAL SETTING

3.1 Climatological Conditions

The airport is located within the South Coast Air Basin of California, a 6,745 square-mile area encompassing all of Orange County and the urban, non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The meteorological conditions at the airport are heavily influenced by the proximity of the airport to the Pacific Ocean to the west and the mountains to the north and east. This location tends to produce a regular daily reversal of wind direction: onshore (from the west) during the day and offshore (from the east) at night. Comparatively warm, moist Pacific air masses drifting over cooler air resulting from coastal upwelling of cooler water often form a bank of fog that is generally swept inland by the prevailing westerly (i.e., from the west) winds. The "marine layer" is generally 1,500 to 2,000 feet deep, extending only a short distance inland and rising during the morning hours producing a deck of low clouds. The air above is usually relatively warm, dry, and cloudless. The prevalent temperature inversion in the Basin tends to prevent vertical mixing of air through more than a shallow layer.

A dominating factor in the weather of California is the semi-permanent high-pressure area of the North Pacific Ocean. This pressure center moves northward in summer, holding storm tracks well to the north, and minimizing precipitation. Changes in the circulation pattern allow storm centers to approach California from the southwest during the winter months and large amounts of moisture are carried ashore. The Los Angeles region receives on average 10 to 15 inches of precipitation per year, of which 83 percent occurs during the months of November through March. Thunderstorms are light and infrequent, and on very rare occasions, trace amounts of snowfall have been reported at the airport.

The annual minimum mean, maximum mean, and overall mean temperatures at the airport are 55 degrees Fahrenheit (°F), 70°F, and 63°F, respectively. The prevailing wind direction at the airport is from the west-southwest with an average wind speed of roughly 6.4 knots (7.4 miles per hour [mph] or 3.3 meters per second [m/s]). Maximum recorded gusts range from 27 knots (31 mph or 13.9 m/s) in July to 54 knots (62 mph or 27.8 m/s) in March. The monthly average wind speeds range from 5.7 knots (6.5 mph or 2.9 m/s) in December to 7.4 knots (8.5 mph or 3.8 m/s) in April.¹⁷

3.2 Ambient Air Quality

In an effort to monitor the various concentrations of air pollutants throughout the basin, the SCAQMD has divided the region into 38 Source Receptor Areas in which monitoring stations operate. The monitoring station that is most representative of existing air quality conditions at

¹⁷ Ruffner, J.A., Climates of the States: National Oceanic and Atmospheric Administration Narrative Summaries, Table, and Maps for Each State with Overview of State Climatologist Programs, Third Edition, Volume 1: Alabama-New Mexico, Gale Research Company, 1985.

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LAX is the Southwest Coastal Los Angeles Monitoring Station located at 7201 W. Westchester Parkway (referred to as the LAX Hastings site), less than 0.5-mile from Runway 6L-24R (northernmost LAX runway). This station monitors O₃, CO, SO₂, NO₂, and PM₁₀. The nearest representative monitoring station that monitors PM_{2.5} is the South Coastal Los Angeles County 1 Station, which is located at 1305 E. Pacific Coast Highway (Long Beach). The most recent data available from the SCAQMD for these monitoring stations encompassed the years 2008 to 2012, as shown in **Table 3-1**.

The data shows the following pollutant trends (refer to Table 2-1 for NAAQS and CAAQS standards):

Ozone - The maximum 1-hour O₃ concentration recorded during the 2008 to 2012 period was 0.106 ppm, recorded in 2012. During the reporting period, the California standard was exceeded once. The maximum 8-hour O₃ concentration was 0.076 ppm recorded in 2008. The California standards were exceeded once during the reporting period, while the NAAQS were not violated.

Carbon Monoxide - The highest 1-hour CO concentration recorded was 3.6 ppm, recorded in 2008. The maximum 8-hour CO concentration recorded was 2.53 ppm recorded in 2008. As demonstrated by the data, the standards were not exceeded during the five-year period.

Nitrogen Dioxide - The highest 1-hour NO₂ concentration recorded was 0.098 ppm in 2011. The maximum 98th percentile 1-hour concentration was 0.070 ppm, recorded in 2009. The highest recorded NO₂ annual arithmetic mean was 0.014 ppm recorded in 2008. As shown, the standards were not exceeded during the five-year period.

Sulfur Dioxide - The highest 1-hour concentration of SO₂ was 0.026 ppm recorded in 2010, while the highest 99th percentile 1-hour concentration recorded was 0.016 ppm in 2010. The maximum 24-hour concentration was 0.006 ppm, recorded in 2009. The highest annual arithmetic mean concentration was 0.001, recorded in 2008. As shown, the standards were not exceeded during the five-year period.

Table 3-1

**Southwest Coastal Los Angeles and South Coastal Los Angeles County
Monitoring Station Ambient Air Quality Data**

Pollutant ^{1,2}	2008	2009	2010	2011	2012
Ozone (O₃)					
Maximum Concentration 1-hr period, ppm	0.086	0.077	0.089	0.078	0.106
Days over State Standard (0.09 ppm)	0	0	0	0	1
Maximum National Concentration 8-hr period, ppm	0.075	0.070	0.070	0.067	0.075
Days over Federal Standard (0.075 ppm)	0	0	0	0	0
Maximum California Concentration 8-hr period, ppm	0.076	0.070	0.070	0.067	0.075
Days over State Standard (0.07 ppm)	1	0	0	0	1
Carbon Monoxide (CO)					
Maximum Concentration 1-hr period, ppm	3.6	2.6	2.6	2.3	2.8
Days over State Standard (20.0 ppm)	0	0	0	0	0

Los Angeles International Airport

Midfield Satellite Concourse
Draft EIR
March 2014/February 2014

Table 3-1

**Southwest Coastal Los Angeles and South Coastal Los Angeles County
Monitoring Station Ambient Air Quality Data**

Pollutant ^{1,2}	2008	2009	2010	2011	2012
Maximum Concentration 8-hr period, ppm	2.53	1.99	2.19	1.79	1.51
Days over State Standard (9.0 ppm)	0	0	0	0	0
Nitrogen Dioxide (NO₂)					
Maximum Concentration 1-hr period, ppm	0.094	0.077	0.076	0.098	0.077
98 th Percentile Concentration 1-hr period, ppm	N/A	0.070	0.061	0.065	N/A
Days over State Standard (0.18 ppm)	0	0	0	0	0
Annual Arithmetic Mean (AAM), ppm	0.014	---	0.012	0.013	0.010
Exceed State Standard? (0.030 ppm)	No	No	No	No	No
Sulfur Dioxide (SO₂)					
Maximum Concentration 1-hr period, ppm	0.021	0.022	0.026	0.011	0.005
Days over State Standard (75 ppb)	0	0	0	0	0
99 th Percentile Concentration 1-hr period, ppm	N/A	0.012	0.016	0.008	N/A
Maximum Concentration 24-hr period, ppm	0.004	0.006	0.004	0.002	0.001
Days over State Standard (140 ppb)	0	0	0	0	0
Annual Arithmetic Mean (AAM), ppm	0.001	---	0.000	0.000	0.000
Respirable Particulate Matter (PM₁₀) ³					
Maximum National Concentration 24-hr period, µg/m ³	50	52	37	41	31
Days over Federal Standard (150 µg/m ³)	0	0	0	0	0
Maximum California Concentration 24-hr period, µg/m ³	50	52	37	41	30
Days over State Standard (50 µg/m ³)	0	6	*	0	0
Annual National Concentration, µg/m ³	25.6	25.6	20.6	21.7	19.8
Annual California Concentration, µg/m ³	25.5	25.5	---	21.4	19.5
Exceed State Standard? (20 µg/m ³)	Yes	Yes	*	Yes	No
Fine Particulate Matter (PM_{2.5}) ³					
Maximum National Concentration 24-hr period, µg/m ³	57.2	63.0	35.0	39.7	49.8
Days over Federal Standard (35 µg/m ³)	8	6	0	2	4
Maximum California Concentration 24-hr period, µg/m ³	57.2	63.0	35.0	39.7	49.8
Annual National Concentration, µg/m ³	14.1	12.8	10.3	11.3	10.4
Exceed State Standard? (12 µg/m ³)	Yes	Yes	No	No	No

Notes:

¹ Monitoring data from the Southwest Coastal Los Angeles Station (Station No. 820) was used for O₃, CO, NO₂, SO₂, and PM₁₀ concentrations. Monitoring Data from the South Coastal Los Angeles County 1 Monitoring Station (Station No. 072) was used for PM_{2.5} concentrations.

² An exceedance is not necessarily a violation. Violations are defined in 40 CFR 50 for NAAQS and 17 CCR 70200 for CAAQS.

³ Statistics may include data that are related to an exceptional event.

Source: California Air Resource Board, iADAM: Air Quality Data Statistics, Available: <http://www.arb.ca.gov/adam/>, accessed April 4, 2013; California Air Resource Board, AQMIS2, Available: <http://www.arb.ca.gov/aqmis2/aqmis2.php>, accessed May 14, 2013.

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Respirable Particulate Matter (PM₁₀) - The highest recorded 24-hour PM₁₀ concentration recorded was 52 µg/m³ in 2009. During the period 2008 to 2012, the CAAQS for 24-hour PM₁₀ was exceeded between 0 and 1.6 percent of the time; the NAAQS was not violated. The maximum annual arithmetic mean recorded was 25.6 µg/m³ in 2008 and 2009.

Fine Particulates (PM_{2.5}) - The maximum 24-hour PM_{2.5} concentration recorded was 63.0 µg/m³ in 2009. The 24-hour NAAQS was exceeded between 0 and 2.2 percent annually from 2008-2012. The highest annual arithmetic mean of 14.1 was recorded in 2008.

3.3 Existing Airport Emissions

3.3.1 Criteria Pollutants

The existing (2012) airport-related emissions, including those from aircraft, GSE and APU operations, on-airport roadways, and stationary sources, are shown in **Table 3-2**.

Table 3-2

Existing (2012) Airport Emissions

Emission Source	Peak Daily Emissions (lbs/day)					
	CO	VOC	NOx	SO ₂	PM ₁₀	PM _{2.5}
Aircraft ¹	15,598	2,599	17,517	1,700	244	244
Ground Support Equipment ¹	3,572	251	1,417	2	58	56
Auxiliary Power Units ¹	563	47	550	75	76	76
Busing Operations ¹	2	<1	13	<1	<1	<1
On-Airport Roadways ²	681	80	1,481	<1	30	28
On-Airport Stationary ³	<1	2	<1	<1	<1	<1
On-Airport Subtotal	20,417	2,980	20,978	1,776	409	405
Off-Airport Stationary ^{3, 4}	<1	<1	<1	<1	<1	<1
Off-Airport Subtotal	<1	<1	<1	<1	<1	<1
Total Baseline Emissions	20,417	2,980	20,978	1,776	409	397

Notes:

¹ Total emissions for LAX.

² Emissions from traffic through the central terminal area (CTA) only.

³ Emissions for MSC North Project site only.

⁴ Off-site stationary emissions include those from purchased electricity.

Source: Ricondo & Associates, Inc., 2013.

3.3.2 Greenhouse Gases

According to the IPCC in 2007, worldwide man-made emissions of GHGs were approximately 40,000 million metric tons of CO₂e (MMTCO₂e), including ongoing emissions from industrial and

agricultural sources, but excluding emissions from land use changes (i.e., deforestation, biomass decay). Total U.S. GHG emissions in 2010 were 6,822 MMTCO₂e, or about 19 percent of worldwide GHG emissions.¹⁸ California is a substantial contributor of global GHGs as it is the second largest contributor in the United States (Texas is number one). CARB compiles GHG inventories for the State of California. Based on the 2010 GHG inventory data (i.e., the latest year for which data are available), California emitted 452 MMTCO₂e *including* emissions resulting from imported electrical power in 2010 and 408 MMTCO₂e *excluding* emissions related to imported power.¹⁹ **Table 3-3** identifies and quantifies statewide anthropogenic GHG emissions and sinks in 1990 and 2010. California emissions are due in part to its large size and large population. By contrast, California had the fifth lowest CO₂ emissions per capita from fossil fuel combustion in the U.S., due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.²⁰

Table 3-3
State of California GHG Emissions¹

Category	Total 1990 Emissions (MMTCO ₂ e)	Percent of Total 1990 Emissions	Total 2010 Emissions (MMTCO ₂ e)	Percent of Total 2010 Emissions
Transportation	150.7	35%	173.2	38%
Electric Power	110.6	26%	93.3	21%
Commercial	14.4	3%	14.5	3%
Residential	29.7	7%	29.4	7%
Industrial	103.0	24%	86.0	19%
Recycling and Waste ²	—	—	7.0	2%
High GWP/Non-Specified ³	1.3	<1%	15.7	3%
Agriculture	23.4	5%	32.5	7%
Forestry	0.2	<1%	0.2	<1%
Forestry Sinks	-6.7	—	— ⁴	—
Net Total	426.6	100%	451.6	100%

Notes:

- 1 Numbers may not add up exactly due to rounding.
- 2 Included in other categories for the 1990 emissions inventory.
- 3 High GWP gases are not specifically called out in the 1990 emissions inventory.
- 4 Revised methodology under development (not reported for 2010).

Source: CARB, 2007, 2013

¹⁸ USEPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010, (2012).

¹⁹ California Air Resources Board, California Greenhouse Gas 2000-2010 Inventory by Scoping Plan Category - Summary, Available: www.arb.ca.gov/cc/inventory/data/data.htm, accessed October 2013.

²⁰ California Air Resources Board, California Greenhouse Gas 2000-2010 Inventory by Scoping Plan Category - Summary, Available: www.arb.ca.gov/cc/inventory/data/data.htm, accessed October 2013.

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Between 1990 and 2010, the population of California grew by approximately 7.5 million (from 29.8 to 37.3 million).²¹ This represents an increase of approximately 25 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from \$773 billion in 1990 to \$1.88 trillion in 2010 representing an increase of approximately 143 percent (over twice the 1990 gross state product).²² Despite the population and economic growth, California's net GHG emissions only grew by approximately 6 percent. The California Energy Commission attributes the slow rate of growth to the success of California's renewable energy programs and its commitment to clean air and clean energy.²³

The existing operational emissions (2012), including those from aircraft, GSE, APU operations, busing operations, and on-airport roadways, are shown in units of MTCO₂e in **Table 3-4**. Indirect off-airport emissions, including the consumption of purchased electricity, disposal of solid waste, and water consumption, are shown as they relate to current uses of the MSC North Project site; these emissions are not representative of the entire airport.

Table 3-4
Existing (2012) Operational GHG Emissions

Emission Source	Annual Emissions (metric tons CO ₂ e ^{1,2} per year)			
	CO ₂ ³	CH ₄ ^{4,9}	N ₂ O ^{5,9}	Total
Aircraft	688,996	399	6,764	696,159
Ground Support Equipment	31,305	217	768	32,290
Auxiliary Power Units ⁶	N/A	N/A	N/A	N/A
Busing Operations ⁷	321	<1	<1	321
On-Airport Roadways ⁸	46,253	174	1,099	47,526
On-Airport Stationary	9	<1	<1	9
On-Airport Subtotal	766,884	790	8,631	776,305
Building Electricity	191	<1	<1	191
Solid Waste Disposal	17	<1	<1	17
Indoor Water Usage	80	<1	<1	80
Off-Airport Subtotal	288	<1	<1	288
Total Existing Emissions	767,172	790	8,631	776,593

Notes:

²¹ U.S. Department of Transportation, Federal Aviation Administration, available: www.faa.gov/about/office_org/headquarters_offices/apl/research/models/edms_model/, accessed October 2013.

²¹ Various sources for emission factors used in this analysis may generate emissions of pollutants different from the standard criteria pollutants. For purposes of this analysis in comparing daily emissions to the SCAQMD mass daily significance thresholds, emissions of reactive organic compounds (ROG) and hydrocarbons (HC) are assumed to be equivalent to VOC and emissions of sulfur dioxide (SO₂) are assumed to

Table 3-4
Existing (2012) Operational GHG Emissions

Emission Source	Annual Emissions (metric tons CO ₂ e ^{1,2} per year)			
	CO ₂ ³	CH ₄ ^{4,9}	N ₂ O ^{5,9}	Total
1 CO ₂ e = carbon dioxide equivalent				
2 CO ₂ e emissions are determined by multiplying the individual pollutant emissions by its respective GWP. The GWP for CH ₄ is 21 and the GWP for N ₂ O is 310.				
3 CO ₂ = carbon dioxide				
4 CH ₄ = methane				
5 N ₂ O = nitrous oxide				
6 The EDMS model does not provide GHG emissions or fuel consumption data for APUs; therefore GHG emissions cannot be estimated.				
7 Busing emissions only include GHG emissions from diesel-fueled buses (approximately 54 percent of the fleet); emissions factors for GHG pollutants were not available for alternatively-fueled buses.				
8 This inventory only includes traffic traveling through the central terminal area (CTA).				
9 CH ₄ and N ₂ O emissions were estimated from the Los Angeles World Airports <i>GHG Emissions Inventory</i> (CDM, 2008).				
Source: Ricondo & Associates, Inc., 2013.				

4.0 METHODOLOGY

4.1 Air Quality

The LAX Master Plan Final EIR analyzed future air pollutant emissions and proposed mitigation measures to address potential Master Plan-related programmatic air quality impacts, including those from the MSC Program. As air quality impacts of the MSC North Project were not analyzed at a project-level in the Master Plan Final EIR, the impacts associated with the construction and operation of the MSC North Project were examined at a greater level of detail in the MSC EIR. The air quality analysis conducted for the future phase(s) of the MSC Program addresses operational-related impacts at a program level.

The air quality analysis conducted for the MSC North Project addresses construction emissions for 2014 through 2019, and operational emissions for years 2019 (MSC North Project) and 2025 (MSC Program). Construction activities analyzed include on-site and off-site construction equipment, fugitive dust, fugitive VOCs, and worker vehicle trips that would occur during the temporary construction period, estimated to be approximately five years. Operational sources included in the air quality analysis for the MSC North Project (2019) were aircraft, ground support equipment (GSE), auxiliary power units (APUs), busing operations, and stationary sources. Operational sources included in the air quality analysis for the future phase(s) of the MSC Program (2025) were aircraft, GSE, APUs, on-airport roadways, and stationary sources.

As part of the air quality analysis for the MSC North EIR, emission inventories were prepared and dispersion modeling was conducted. The results of these efforts were evaluated to ensure that the MSC North Project complies with all federal, State, and local regulations.

4.1.1 Scope of Analysis

The air quality analysis conducted for the MSC North Project addresses construction-related impacts and operational-related impacts. Because the LAX Master Plan EIR analyzed construction of the MSC Program as part of the preferred alternative, only operational-related emissions associated with the future phase(s) of the MSC Program were analyzed.

4.1.1.1 Scenarios

The notice of preparation (NOP) for the EIR was issued in February 2013; thus, 2012 was used as the baseline for the EIR as this represents the last full year of available data. The air quality analysis conducted for the MSC North Project addresses construction-related impacts for the approximately five years of proposed construction activities, and operations-related impacts for the future horizon year of 2019. Since the MSC North Project is being considered at a project level, the year 2019 represents completion of that project. Analysis of the year 2025 was performed to consider the effects of the future phase(s) of the MSC Program at a programmatic level.

Analyses for the following scenarios were conducted in the EIR:

- 2012 Conditions
 - 2012 existing conditions – 2012 activity levels and existing airfield configuration
 - 2012 existing with MSC North Project – 2012 activity levels with the MSC North Project components
 - 2012 existing with MSC Program – 2012 activity levels with the MSC Program components
- Future 2019 Conditions
 - 2019 Future Without MSC North Project – 2019 activity levels and the 2019 airfield configuration, not including the MSC North Project components
 - 2019 Future With MSC North Project – 2019 activity levels with MSC North Project components

The following scenarios were discussed in the EIR for the future phase(s) of the MSC Program. Impacts were discussed based on previous analyses contained in the SPAS Final EIR and additional analyses for aircraft operations and on-airport traffic.

- Future 2025 Conditions
 - 2025 Future Without MSC Program – Master Plan Alternative D (SPAS Alternative 3) without the MSC Program or Central Terminal Processor (CTP)

- 2025 Future With MSC Program – Master Plan Alternative D (SPAS Alternative 3) with the MSC Program, including the CTP

4.1.1.2 Types of Analysis

Below is an overview of the types of analyses performed for the EIR, including the emissions inventory and localized dispersion modeling. A detailed approach including technical assumptions, methodologies, databases, and models used to conduct the air quality analysis can be found in Sections 4.1.2 and 4.1.3.

4.1.1.2.1 Inventory

Criteria pollutant emission inventories were developed for the projected construction period of the MSC North Project, anticipated to occur from mid-2014 to mid-2019. The basic construction inventory process steps are summarized below:

- Identify construction-related emissions sources associated with the MSC North Project.
- Capture construction activities of site-preparation, construction of paved and concrete surface, building erection-related activities, material delivery, and construction employee commuter trips.
- Prepare emissions inventory of construction emissions for all construction years.
- Compare emissions inventories with appropriate CEQA thresholds for construction.
- Identify potential construction-related mitigation measures beyond LAX Master Plan commitments and mitigation measures (if required).

Criteria pollutant emission inventories were also developed for operations of the scenarios listed in Section 4.1.1.1. The overview of the operational inventory process is provided below:

- Identify operational emission sources potentially affected by the MSC North Project and future phase(s) of the MSC Program.
- Develop annual and daily operational emissions inventories for the identified sources.
- Compare emissions inventories with the appropriate CEQA thresholds for operations.

4.1.1.2.2 Dispersion Modeling

Air dispersion modeling was conducted to predict pollutant concentrations for operational sources for the existing 2012 conditions, and the 2019 Future Without and With MSC North Project scenarios. Basic components of dispersion modeling include inputting inventory data, meteorological data, and receptor locations into FAA's Emissions and Dispersion Modeling

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System (EDMS), Version 5.1.4.1.²⁴ Incremental concentrations were compared to CEQA Thresholds.

- Receptors were established along the airport fence line and in the CTA.
- Five years of hourly surface data collected at the SCAQMD's on-airport meteorological station at LAX was used in the modeling to determine peak concentrations.
- Background concentration data was obtained from SCAQMD and added to the modeled Project effects to estimate future concentrations with the MSC North Project.

As net on-site operational emissions for the 2025 MSC Program scenario would actually be improved over the 2025 Without Program for CO, NO_x, SO₂, PM₁₀, and PM_{2.5}, localized concentration impacts to off-site sensitive receptors would be less than significant. As a result, localized operational impacts were not assessed at a program-level in this EIR, but would be assessed at a project-level in the future.

4.1.1.2.3 Cumulative impacts

The construction of various on-going and anticipated future projects at LAX would potentially occur simultaneously with the MSC North Project. Emissions for several of these related LAWA projects were estimated or obtained from publicly available and readily accessible environmental documents. The estimated mass emissions from these projects were added to those of the MSC North Project and compared against SCAQMD CEQA thresholds.

4.1.2 Emissions Inventory Methodology

The criteria pollutant emission inventories were developed using standard industry software/models and federal, State, and locally approved methodologies. Results of the emission inventories were compared to mass daily emissions thresholds established by SCAQMD for the Basin.

The air quality assessment for the MSC North Project was conducted in accordance with the SCAQMD's 1993 CEQA Air Quality Handbook and updates published on the SCAQMD website. Emissions estimating and modeling used in this analysis are consistent with those used in the preparation of the following documents:

- The LAX Master Plan Final EIR;
- The Final General Conformity Determination;
- The Final EIR for the South Airfield Improvement Project (SAIP);
- The Final EIR for the Crossfield Taxiway Project (CFTP);
- The Final EIR for the Bradley West Project;

²⁴ U.S. Department of Transportation, Federal Aviation Administration, available: www.faa.gov/about/office_org/headquarters_offices/apl/research/models/edms_model/, accessed October 2013.

- The Final EIR for the LAX Specific Plan Amendment Study (SPAS);
- The Draft EIR for the Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Project; and
- The Draft EIR for the West Aircraft Maintenance Area Project.

Mass emissions inventories were prepared for construction and operation of the MSC North Project. The construction inventories identify the peak year of construction emissions associated with completing the proposed MSC North Project between 2014 and 2019. Operational emissions were calculated for the existing 2012 conditions, the 2012 existing With MSC North Project, and the 2019 Future Without and With the MSC North Project. The following section discusses the assumptions associated with each Project-related inventory (construction and operation); cumulative effects are discussed in Section 4.1.4.

Mass emissions inventories were also prepared for the operations of the future phase(s) of the MSC Program. Operational emissions were calculated for the existing 2012 conditions, the 2012 existing With MSC Program, and the 2025 Future Without and With the MSC Program. Assumptions for the Program inventory are discussed in Section 4.1.2.2.2.

4.1.2.1 Construction Sources

This section describes the data and methodologies used to estimate emissions of criteria pollutants (CO, VOC, NO_x, SO₂, PM₁₀ and PM_{2.5}) generated by construction of the MSC North Project.²⁵ Estimates of construction-related emissions were developed for the MSC North Project using standard industry methodologies and techniques, and are consistent with methodologies used to estimate construction emissions in support of other EIR documents for projects at LAX. Emissions inventories for construction activity were prepared commensurate with the CEQA thresholds upon which the project were compared, as outlined in Section 2.3.1.

Construction emissions were quantified for the five years (mid-2014 through mid-2019) planned for construction of the MSC North Project. Construction is anticipated to begin in July 2014 and be completed by June 2019.

Construction emissions analyses generally require information such as the type of construction equipment to be used, equipment operating time, estimates of required construction material, and the number of employees anticipated to be on site. Much of the data required to conduct the analyses was developed by Connico, Inc. This information generally consisted of overall construction Project schedules; construction equipment vehicle specifications; anticipated operating hours, land development areas, and facility areas; and quantities and sources of construction materials.

²⁵ Various sources for emission factors used in this analysis may generate emissions of pollutants different from the standard criteria pollutants. For purposes of this analysis in comparing daily emissions to the SCAQMD mass daily significance thresholds, emissions of reactive organic compounds (ROG) and hydrocarbons (HC) are assumed to be equivalent to VOC and emissions of sulfur dioxide (SO₂) are assumed to be equivalent to SO_x.

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Using the provided construction data, monthly construction emissions estimates were developed. Daily emissions were calculated by dividing monthly emissions by the number of work days in the given month, based on a 5-day-per-week workweek, from which maximum daily emissions were derived. These daily emissions were compared against applicable SCAQMD mass daily significance thresholds. Annual emissions were based on the monthly emissions estimates.

Emission estimates for criteria pollutants were developed for the following construction sources:

- Off-road construction equipment
- On-road construction equipment
- Construction worker commute vehicles and delivery/haul trucks
- Fugitive Dust
- Fugitive VOCs

A summary of construction source pollutants and models/references used in the analysis is shown in **Table 4-1**.

Table 4-1
Construction Sources Pollutant and Model Summary

Construction Source	Pollutant(s)	Model/Reference
Off-Road Equipment	CO, SO ₂	OFFROAD2007 ¹
	VOC, NO _x , PM ₁₀	OFFROAD2011 ² and USEPA tiered emissions standards ³
	PM _{2.5}	CEIDARS ⁴
On-Road On-Site Equipment	CO, VOC, NO _x , PM ₁₀	EMFAC2011 ⁵
On-Road Off-Site Equipment	CO, VOC, NO _x , PM ₁₀	EMFAC2011
Fugitive Dust	PM ₁₀ , PM _{2.5}	USEPA AP-42 ⁶
Fugitive VOCs	VOC	CalEEMod ⁷

Notes:

- 1 California Air Resources Board, OFFROAD2007 Model, available: www.arb.ca.gov/msei/offroad/offroad.htm.
- 2 California Air Resources Board, 2011 Inventory Model for In-Use Off-Road Equipment, available: www.arb.ca.gov/msei/categories.htm#offroad_motor_vehicles.
- 3 South Coast Air Quality Management District off-road engine emission rates, available: www.aqmd.gov/ceqa/handbook/mitigation/offroad/Tabell.xls.
- 4 California Air Resources Board, California Emission Inventory and Reporting System (CEIDARS) – Particulate Matter Speciation Profiles – Summary of Overall Size Fractions and Reference Documentation.
- 5 California Air Resources Board, Research Division, EMFAC2011 On-Road Emissions Inventory Estimation Model.
- 6 U.S. Environmental Protection Agency, Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume 1: Stationary Point and Area Sources (dates vary by chapter).
- 7 South Coast Air Quality Management District, California Emissions Estimator Model, prepared by ENVIRON International Corporation, available: <http://www.caleemod.com/>.

Source: Ricondo & Associates, Inc., 2013.

Detailed data and calculations used to estimate criteria pollutant emissions generated from construction activities are provided in **Attachment B.1**.

Off-Road Construction Equipment

Off-road construction equipment includes dozers, loaders, sweepers, and other heavy-duty construction equipment that operates on a construction site, that are not licensed to travel on public roadways. Off-road equipment emissions were calculated as shown in **Equation 4-1**.

Equation 4-1

Off-Road On-Site Equipment Emissions

$$E = HP \times L \times H \times e \times EF$$

Where:

<i>E</i>	=	emissions (lb/month)
<i>HP</i>	=	horsepower
<i>L</i>	=	load factor
<i>H</i>	=	total hours per month of equipment operation
<i>e</i>	=	efficiency factor
<i>EF</i>	=	emission factor (lb/hp-hr)

Source: Ricondo & Associates, Inc., 2013.

Off-road equipment types, models, horsepower, load factor, and estimated hours of operation were provided for each construction task for the MSC North Project by Connico, Inc. Monthly hours of operation for a given piece of equipment were derived by multiplying operating hours per shift (assumed to be 8 hours for most equipment types) by the number of shifts (2), by the number of pieces of equipment assigned to a specific construction activity, and by the number of workdays in the month, assuming a 5-day-per-week workweek. For equipment anticipated to operate a full 8 hours per shift, an efficiency factor of 83.3 percent was applied, assuming that on average, the equipment would be operated for approximately 50 minutes out of each hour (50/60 = 83.3%).

Emission factors for off-road equipment were obtained from several sources, as shown in Table 4-1. For CO and SO₂, emission factors were obtained from CARB's OFFROAD2007 emission factor model.²⁶ The model was run for each construction year. For each construction equipment type, the model generates emissions in tons per day for several horsepower ranges/bins. For each equipment type and horsepower bin combination, the emissions in tons per day were multiplied by 2,000 (pounds per ton) and divided by activity (hours per day), load factor (from the OFFROAD2007 data file), and average horsepower (from the OFFROAD2007 data file). Using this methodology, an emission factor in pounds per horsepower-hour (lb/hp-hr)

²⁶ For gasoline powered off-road construction equipment, emission factors for all criteria would have been derived from OFFROAD2007, as the other emission factor sources described in this section pertain only to diesel-powered equipment. For purposes of this analysis, no gasoline powered off-road construction equipment was assumed.

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was derived for each equipment type by horsepower bin. The emission factor applied to a given piece of equipment was then selected based on the horsepower of the equipment. It should be noted that the OFFROAD2007 model does not include every specific type of equipment assumed for construction of the MSC North Project. Where necessary, specific equipment types were matched with an equivalent/representative OFFROAD2007 equipment type for purposes of selecting an appropriate emission factor.

Emission factors for VOC, NO_x, and PM₁₀ were obtained and used based on construction-related air quality control measures developed for LAX. For construction activities occurring in 2014, all off-road diesel-powered construction equipment greater than 50 horsepower was assumed to meet USEPA Tier 3 off-road emission standards for these pollutants. For construction activities occurring in 2015 and later, all off-road diesel-powered construction equipment greater than 50 horsepower was assumed to meet USEPA Tier 4 off-road emission standards for these pollutants (final Tier 4 standards were assumed for NO_x). These emissions standards are reflected in emission factors reported in grams per horsepower-hour (g/hp-hr) for various horsepower ranges. The factors were converted to lb/hp-hr for emissions calculation purposes.

CARB's OFFROAD2011 emission factor model was used for deriving emission factors of VOC, NO_x, and PM₁₀ for off-road construction equipment less than 50 horsepower. The computation of emission factors from OFFROAD2011 was performed essentially identical to the methodology described previously for deriving emission factors from OFFROAD2007.

PM_{2.5} emission factors were derived using the PM₁₀ emission factors and PM_{2.5} size profiles derived from the CARB-approved CEIDARS database. In this case, a factor of 0.92 was applied to PM₁₀ emission factors to derive PM_{2.5} emission factors. This factor represents the size fraction of PM₁₀ emissions that can be assumed to be PM_{2.5} emissions with respect to diesel vehicle exhaust.

Consistent with mitigation measure MM-AQ-2, certain off-road equipment types were assumed to be equipped with diesel particulate filters (DPFs) achieving PM₁₀ and PM_{2.5} emissions reductions ranging from 8.3 to 74.7 percent. Diesel construction equipment meeting USEPA Tier 4 emissions standards were not assumed to be equipped with DPFs. Therefore, only applicable equipment operating in 2014 was assumed to be equipped with these devices. DPF compatibility and reduction rates were based on information contained in the Final EIR for the Bradley West Project.

On-Road Construction Equipment

On-road on-site equipment emissions were generated for on-site pickup trucks, water trucks, haul trucks, dump trucks, cement trucks, and flatbed trucks that are licensed to travel on public roadways. **Equation 4-2** was used to calculate emissions from on-road on-site equipment.

Typically, emissions from on-road vehicles are calculated by applying an emission factor to the number of miles traveled by each vehicle. However, for this analysis, on-road on-site vehicles were included in the resource schedule provided by Connico, Inc., similar to off-road equipment. Therefore, emissions for on-road equipment operating on the construction site were calculated by applying an emission factor to the number of hours that the vehicle is assumed to operate. Based on information provided by Connico, Inc., nearly all on-road on-site equipment was

assumed to operate for less than 8 hours per shift and therefore, no efficiency factor was assumed for these vehicles. Water trucks were generally assumed to operate for 8 hours per shift and therefore, an efficiency factor of 83.3 percent was applied to the calculation of emissions for these vehicles, assuming operating times of 50 minutes out of each hour.

Equation 4-2

On-Road On-Site Equipment Emissions

$$E = H \times e \times EF$$

Where:

- E = emissions (lb/month)
- H = total hours per month of equipment operation
- e = efficiency factor
- EF = emission factor (lb/hr)

Source: Ricondo & Associates, Inc., 2013.

Emissions factors for all criteria pollutants (including PM_{2.5}) for on-road construction equipment were obtained from CARB's EMFAC2011 emission factor model. The EMFAC2011 model was run for each construction year and each seasonal period (annual, summer, winter) in the South Coast Air Basin.²⁷

EMFAC2011 contains a comprehensive list of vehicle categories. For this analysis, haul trucks, water trucks, cement trucks, end dump trucks, and flatbed trucks were assumed to be represented by the T7 single construction (diesel) EMFAC2011 vehicle category. This category is defined as heavy-heavy duty diesel single unit construction trucks. In accordance with construction-related air quality control measures developed for LAX, emission factors for these vehicles were modeled for model year 2007 vehicles to represent compliance with USEPA 2007 on-road emissions standards. On-site pickup trucks were assumed to be represented by the LHD2 (gasoline) EMFAC2011 vehicle category, which is defined as light-heavy-duty trucks (10,001-140,000 lbs.).

For diesel vehicles, the EMFAC2011 factors account for running and idling emissions for all pollutants. PM₁₀ and PM_{2.5} factors include tire and brake wear. Running emissions are expressed in grams per mile (g/mi), while idling emissions are expressed in grams per hour (g/hr). Running emissions were converted to lb/hr by assuming an on-site vehicle speed of 20 miles per hour (mph). For gasoline vehicles, ROG (VOC) emission factors include diurnal, hot soak, running, and resting emissions, and the PM₁₀ and PM_{2.5} factors include tire and brake wear. All emission factors for on-site gasoline vehicles were converted to g/mi and then converted to lb/hr by applying a grams-to-pound conversion factor and assuming an on-site vehicle speed of 20 mph.

²⁷ For purposes of conducting the most conservative emissions analysis, the selected EMFAC2011 emission factor for each vehicle type was based on the highest emission factor calculated for each seasonal period.

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In accordance with construction-related air quality control measures developed for LAX, diesel vehicles (in this case the T7 single construction vehicles) were assumed to be fitted with exhaust retrofit devices providing an 85-percent reduction in PM₁₀ and PM_{2.5} emissions.

Construction Worker Commute Vehicles and Delivery/Haul Trucks

On-road off-site trips include personal vehicles used by construction workers to access the construction site, as well as hauling trips for the transport of various materials to and from the site. **Equation 4-3** shows the calculation of emissions from on-road off-site equipment. The calculation is similar to the calculation of on-site on-road vehicles, except that instead of multiplying an emission factor by number of hours, an emission factor is multiplied by total vehicle miles traveled (VMT).

Equation 4-3

On-Road Off-Site Equipment Emissions

$$E = VMT \times EF$$

Where:

E = emissions (lb/month)
 VMT = vehicle miles traveled per month
 EF = emission factor (lb/mi)

Source: Ricondo & Associates, Inc., 2013.

Emission factors for on-road off-site vehicles were obtained from EMFAC2011 in the same way as described previously for on-road on-site vehicles, although emission factors were used in units of g/mi and applied to the VMT estimates to calculate total emissions. For all on-road off-site vehicles, emission factors were obtained assuming an aggregated speed.²⁸

The number of construction workers per crew per shift was provided by Connico, Inc. Total monthly construction workers for a given activity were calculated by multiplying the number of workers per crew per shift by two shifts and by the number of working days in the month, assuming a 5-day-per-week workweek. Total monthly workers were converted to monthly vehicle trips by assuming a factor of 1.15 workers per vehicle per trip. Monthly VMT for construction worker vehicles was then calculated by multiplying the number of monthly vehicle trips by an assumed roundtrip distance of 40 miles.

Off-site delivery trips include the delivery of construction materials, concrete, asphalt, batch plant materials, and base material to the construction site; hauling trips include the hauling of excess cut/fill material, demolished pavement, and demolished building material from the construction site. The calculation of monthly VMT for on-road on-site hauling trips was based on quantities and trip data provided by Connico, Inc. Based on information from Connico, Inc., haul trucks were assumed to travel a roundtrip distance of 40 miles for all hauling trips, except

²⁸ Based on a calculation performed using data from EMFAC2011, the weighted average speed is approximately 35 mph for these vehicle types.

for concrete deliveries (25 miles) and hauling of demolished pavement (5 miles).²⁹ Trips for hauling vehicles were calculated over the course of the entire project and were divided by the number of days that the trips would take place over the course of the year for each construction activity in order to calculate daily VMT.

To represent a mix of construction worker vehicles, the analysis assumed a mix of:

- 50 percent passenger cars (EMFAC2011 vehicle category LDA);
- 30 percent light-duty trucks (0-3,750 lbs.) (LDT1); and
- 20 percent light duty trucks (3,751-5,750 lbs.) (LDT2).

This vehicle mix is identified in CalEEMod as an option for modeling emissions from construction worker vehicles and represents a reasonable vehicle mix for such trips. For off-site hauling trips, the T-7 single construction EMFAC2011 vehicle category was assumed for all vehicles.

To calculate monthly emissions from construction worker vehicles, monthly VMT was multiplied by the appropriate emission factor. For hauling trips, the derived daily VMT was multiplied by the number of days in each month that each respective type of hauling trip would take place and then multiplied by the appropriate emission factor, resulting in monthly emissions.

Fugitive Dust

Additional sources of PM₁₀ and PM_{2.5} emissions associated with construction activities are related to fugitive dust. Fugitive dust includes re-suspended road dust from both off- and on-road vehicles, as well as dust from grading, loading, unloading, and other activities. Additional sources of fugitive dust quantified in the analysis included building demolition, crushing of demolished pavement, and concrete batching.

Fugitive dust emissions (PM₁₀ and PM_{2.5}) were calculated using the guidance from the USEPA's AP-42, the SCAQMD's CEQA Air Quality Handbook, and documentation associated with CalEEMod. Fugitive dust emissions were calculated for the following construction activities:

- Vehicles traveling on paved roads. All off-site on-road vehicles are assumed to travel on paved roads.
- Vehicles traveling on unpaved roads. All on-road on-site vehicles are assumed to travel on unpaved roads.
- On-site construction activities, including: grading, crushing, loading, hauling and storage.
- Operations activities of an on-site construction batch plant at the staging area. Concrete needed for construction of Taxiway C14, Taxilane C12, and the MSC apron is assumed to be generated from an on-site concrete batch plant.
- An on-site rock crusher. An overall emission factor was derived by summing emission factors for crushing activities including tertiary crushing, fine crushing, and screening.

²⁹ Demolished pavement material was assumed to be crushed on-site.

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- Demolition of existing buildings.

Water, as required under LAWA construction contracts and also being one of the main dust suppression measures recognized in SCAQMD Rule 402, was assumed to reduce fugitive dust emissions by 61 percent.

Fugitive dust emissions were calculated in lb/hr for each on-site equipment type assumed in the analysis, including rock crushers and concrete batch plants. Fugitive dust emissions for building demolition were calculated in total and distributed by month based on the construction schedule.

Fugitive VOCs

The primary source of construction-related fugitive VOC emissions is hot-mix asphalt paving. VOC emissions from asphalt paving operations result from evaporation of the petroleum distillate solvent, or diluent, used to liquefy asphalt cement. Based on the CARB default data contained within CalEEMod, an emission factor of 2.62 pounds of VOC (from asphalt curing) per acre of asphalt material was used to determine VOC emissions from asphalt paving. The only construction activity assumed to include significant asphalt paving is the reconfiguration of new landside/AOA perimeters and service roads.

4.1.2.2 Operational Sources

This section describes the data and methodologies used to estimate emissions of criteria pollutants (CO, VOC, NO_x, SO₂, PM₁₀, and PM_{2.5}) associated with the ongoing operations of the airport. In the context of CEQA, operational emissions provide an indication of the changes in emissions that completing and operating the proposed MSC North Project would have when comparing operational emissions without the MSC North Project, as well as the effects of the MSC Program at a programmatic-level.

Estimates of operational emissions were developed for the MSC North Project using standard industry methodologies and techniques, and are consistent with methodologies used to estimate operational emissions in support of other EIR documents for projects at LAX. Using the design day flight schedule, among other operational characteristics, annual emissions were calculated for each source group for the existing 2012 conditions, 2012 With MSC North Project, 2019 Future Without and With the MSC North Project, 2012 With MSC Program, and 2025 Future Without and With MSC Program. Daily emissions were compared against applicable SCAQMD mass daily significance thresholds.

Detailed data and calculations used to estimate criteria pollutant emissions generated from operational sources are provided in **Attachment B.4**.

4.1.2.2.1 MSC North Project

A forecasted increased demand for air travel in 2019, anticipated independently of the MSC North Project, would result in an increase in total aircraft activity. However, the MSC North Project would not increase the number of flights or type of aircraft utilizing the airport; it will only change the location of aircraft gates, where passengers would board and deplane the aircraft. This would not result in changes to air traffic patterns or an increase in airport operations.

Mobile Sources

For purposes of the MSC North Project analysis, mobile sources were limited to off-road sources, including aircraft, on-board APUs, GSE, and busing operations that operate in the non-public access areas of LAX. An APU is a small, on-board engine that operates to provide power to an aircraft for lights and ventilation while it is parked at the gate when the main engines are off. GSE are surface vehicles used to service a flight while an aircraft is parked at a gate, including baggage tugs, lavatory carts, and push-back tractors.

Aircraft

Airport simulation models (SIMMOD) have been conducted for various airfield alternatives and numerous operating scenarios since the LAX Master Plan EIR. These models were used to develop a SIMMOD model for the existing 2012 conditions and 2019 Future Without and With MSC North Project. The simulation models use the design day flight schedule (DDFS) and information about facilities and operations to predict specific timing, volume, and location (e.g., runway used) for aircraft operations. The model outputs data including runway use, gate and terminal use, and time-in-mode that is then used to estimate aircraft emissions. There are four runway use configurations at LAX; SIMMOD models were conducted for all of them. The annual use for each runway configuration, as well as the associated taxi arrival and departures times, are shown in **Tables 4-2** through **4-4** for the existing 2012 conditions, 2019 Future Without MSC North Project, and 2019 Future With MSC North Project, respectively.

Table 4-2
Runway Configuration and Average Taxi Time, Existing 2012 Conditions

Configuration	Annual Use	Taxi Times (Minutes)	
		Arrivals	Departures
VFR West	69.2%	9.92	11.75
MVFR West	24.6%	9.84	11.75
MVFR East	2.1%	11.74	15.77
Average VFR	95.9%	9.53	11.35
IFR West	4.1%	10.41	13.22
Average All-weather	100.0%	9.96	11.89

Source: Ricondo & Associates, Inc., 2013.

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Table 4-3

Runway Configuration and Average Taxi Time, 2019 Future Without MSC North Project

Configuration	Annual Use	Taxi Times (Minutes)	
		Arrivals	Departures
VFR West	69.2%	9.66	12.15
MVFR West	24.6%	9.78	12.43
MVFR East	2.1%	11.43	15.52
Average VFR	95.9%	9.33	11.79
IFR West	4.1%	10.37	14.19
Average All-weather	100.0%	9.76	12.37

Source: Ricondo & Associates, Inc., 2013.

Table 4-4

Runway Configuration and Average Taxi Time, 2019 Future With MSC North Project

Configuration	Annual Use	Taxi Times (Minutes)	
		Arrivals	Departures
VFR West	69.2%	9.65	12.04
MVFR West	24.6%	9.76	12.43
MVFR East	2.1%	11.24	15.95
Average VFR	95.9%	9.31	11.73
IFR West	4.1%	10.36	13.99
Average All-weather	100.0%	9.74	12.30

Source: Ricondo & Associates, Inc., 2013.

Taxi times for the 2012 With MSC North Project were calculated based on the difference of the all-weather averages between the 2019 Future Without and With MSC North Project scenarios. By calculating the delta between the 2019 Future Without and With Project and multiplying that same delta per number of operations to the 2012 total annual operations, taxi times were established for the 2012 With MSC North Project scenario. The arrival and departure times for the 2012 With MSC North Project scenario are shown in **Table 4-5**.

Table 4-5

Average Taxi Time, 2012 With MSC North Project

Configuration	Taxi Times (Minutes)	
	Arrivals	Departures
Average All-weather	9.94	11.82

Source: Ricondo & Associates, Inc., 2013.

Emissions for the existing 2012 conditions, 2012 With MSC Project, and 2019 Future Without and With MSC North Project were calculated using EDMS. EDMS was used as the primary model in developing airport emissions inventories for previous LAX EIR analyses, including the TBIT EIR and the SPAS Final EIR. EDMS inputs for the aircraft inventory are based on the following assumptions:

- Default time-in-mode for all modes except taxi/idle/delay (TAD).
- TID time-in-mode taken from the respective average all-weather taxi arrival and departure times for each modeled scenario.
- Climbout, takeoff, and approach were adjusted to reflect the mixing height for LAX, 1,806 feet, rather than the default of 3,000 feet.
- Aircraft engine assignments based on JP Fleet data as available. Otherwise, default assignments were used.
- Daily operations by aircraft type from the DDFSs.

Ground Support Equipment and Auxiliary Power Units

Three key data sets are needed to consider emissions from GSE: 1) the type of equipment, 2) the amount of time it is used, and 3) the emission factor associated with that equipment. The basic approach used to calculate emissions for GSE is as follows:

1. EDMS default GSE vehicle/equipment types and time-in-mode were selected for each aircraft type.
2. These equipment types were matched and distributed among the actual LAX GSE equipment from an airport-specific GSE survey conducted by CDM Smith in 2013, by equipment type and horsepower.
 - a. Some equipment would only be required for use at specific gates or for specific operations (i.e., cargo versus passenger operations):
 - i. Although pre-conditioned air is available at all of the main commercial airline gates, it was assumed that air conditioning GSE would still be necessary at the West Remote Gates and the Commuter Terminal. Passenger stands were also only assumed to be used at the West Remote Gates and the Commuter Terminal.

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- ii. Aircraft tractors, bag tractors, belt loaders, and catering trucks were assumed only necessary for scheduled passenger operations.
 - iii. Cargo loaders, cargo tractors, and fork lifts were assumed only for cargo operations.
- b. In addition to aircraft-specific GSE, there is also GSE equipment that provides airport-wide functions (i.e., service trucks, sweepers, deicers). For these equipment types, the 2025 data from the SPAS EIR was used to estimate annual hours. The annual hours per operation from 2025 were scaled back to 2019 and 2012 based on the percentage reduction of annual operations.
3. The hours for each equipment type were summed (GSE minutes per operation multiplied by the number of annual operations).
4. GSE hours per equipment type were separated by fuel type by applying the actual percentage of GSE fuel types [gasoline, diesel, compressed natural gas (CNG), liquefied natural gas (LNG)] from the 2013 GSE Survey. Several GSE equipment are electric powered; however, these units do not contribute to emissions and therefore were not considered in the GSE inventory.
5. The total hours per equipment type per fuel type were divided by the actual number of GSE units to obtain the annual hours of use per equipment.

GSE emissions for the existing 2012 conditions and 2019 Future Without and With MSC North Project were calculated using EDMS. 2012 With MSC North Project GSE emissions were conservatively assumed equal to the existing 2012 conditions. In addition to the above approach, the following assumptions were also used:

- Emission factors were taken from CARB's OFFROAD2007 model and OFFROAD20011:
 - OFFROAD2007: CO, SO₂
 - OFFROAD2011: HC, NO_x, PM³⁰
- Emissions were computed by inputting user-defined GSE profiles into EDMS.
- The 2019 Future With MSC North Project inventory also took into account additional operating time for some GSE types (i.e., baggage tugs) due to passenger processing at other terminals.

APU emissions were calculated using EDMS for each scenario. Although it was assumed that 400 hertz (Hz) electric power and pre-conditioned air would be available at all commercial airline gates, APUs would continue to be used during taxiing. APU emissions were calculated using default emissions factors and scenario-specific taxi times.

Airfield Busing

Airfield busing emissions were calculated using the projected number of passengers per aircraft for the gates requiring busing: the American Eagle Commuter Terminal, the West Remote Gates, and for the 2012 With MSC North Project and 2019 Future With MSC North Project

³⁰ It was assumed that emissions from PM = PM₁₀ = PM_{2.5}.

scenario, the MSC North concourse. The basic approach used to calculate emissions for airfield busing is as follows:

1. Determine number/types of aircraft at gates requiring busing (total ops per day) and number of passengers on applicable flights, from the DDFS.
2. Calculate the number of buses required per aircraft and terminal for each scenario, assuming:
 - a. 77 passenger capacity per bus
 - b. Single bus(es) per aircraft operation; for example, if an arriving or departing aircraft only had 25 passengers, it was estimated that they would use one full bus. Passengers from multiple flights would not combine onto buses.
 - c. Each bus would make one round trip for arrivals, and one round trip for departures. It was not assumed that a bus dropping off departing passengers would then return with arriving passengers.
3. Annualize the number of buses based on a peak-load factor and number of days per year. The DDFS is based on a peak month average day; to determine a daily average number of bus trips, the peak daily trips were multiplied by a factor of 0.93 (conversion of peak daily operations to average daily operations).
4. Calculate the VMT for each busing route. The busing routes to/from the MSC concourse to the CTA and TBIT assume equal distribution among each terminal, as shown in **Figure 6**. An average distance from the north CTA, south CTA, and TBIT were used for calculations.

Airfield busing operations emissions for the existing 2012 conditions, 2012 With MSC North Project, and 2019 Future Without and With MSC North Project were calculated using EDMS with inputs from the information collected/calculated in the steps above. The fleet mix for each operational year is shown in **Table 4-6**.

Table 4-6
Operational Scenario Airport Bus Fleet Composition

Operational Year	Diesel Fleet (%)	CNG Fleet (%)
2012	56%	44%
2019	0%	100%

Source: Ricondo & Associates, Inc., 2013.

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User defined emission factors for the on-airport buses were based on fuel type:

- Diesel emission factors for CO, ROG, TOG, NO_x, PM₁₀ and PM_{2.5}, were obtained from EMFAC2011 using the urban bus setting, aggregated fleet mix, annual season average, and an average speed of 20 mph.
- CNG emission factors for urban buses are not currently available from CARB. Therefore, the CNG bus emissions factors for CO, NO_x, and PM were obtained from the manufacturer (Cobus Industries). It was assumed that PM was equal to PM₁₀ and PM_{2.5}.

Stationary Sources

The emissions of criteria pollutants associated with on-site stationary sources (natural gas space heaters and water heaters), as well as off-site emissions from purchased electricity, were estimated using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2.³¹ CalEEMod is a State-wide land use emissions computer model that calculates criteria pollutant and GHG emissions associated with a variety of land use projects. The model was developed in collaboration with the air districts of California including the SCAQMD.

Stationary sources for the existing 2012 conditions and the 2019 Future With MSC North Project scenarios were based on facilities located at the MSC site; the emissions presented in the EIR are not representative of the whole airport. Estimates of natural gas usage were based on facility size (square feet) and type. For the 2019 Future Without MSC North Project scenario, the existing 2012 conditions were used since the MSC site would remain unchanged. The 2012 With MSC North Project assumes the same facility as the 2019 Future With MSC North Project.

As described in Section 1.3.1.2, *Enabling Projects*, implementation of the proposed MSC North Project would include the removal of several existing nearby buildings in order to construct components of the MSC North Project. As previously discussed, all facilities would be relocated in-kind or consolidated with an existing facility, aside from the U.S. Coast Guard Facility. As such, the existing 2012 conditions only quantifies the emissions from the U.S. Coast Guard facility.

The U.S. Coast Guard facility is a 39,000 square foot building located on the east side of Coast Guard Road, just north of World Way West. As this area is within the object free area associated with proposed Taxiway C14, it must be relocated. The facility spaces associated with the U.S. Coast Guard facility are shown in **Table 4-7**. As the space types in CalEEMod are limited, certain space types were combined for modeling purposes. Because the U.S. Coast Guard facility was constructed several years ago, mitigation measures related to reduced energy consumption and reduced water use were not quantified.

³¹ South Coast Air Quality Management District, California Emissions Estimator Model, prepared by ENVIRON International Corporation, available: <http://www.caleemod.com/>

Table 4-7

U.S. Coast Guard Facility Functional Areas

U.S. Coast Guard Facility Space Type	Square Footage	Equivalent CalEEMod Space Type
Hangar	25,000	Unrefrigerated Warehouse
Office, Storage and Maintenance	14,000	General Office Building
Auto Parking	33,300	Parking Lot

Source: Ricondo & Associates, Inc., 2013.

The 2019 Future With MSC North Project scenario quantifies the emissions from the operations of the completed MSC North concourse. Natural gas combustion for heating and cooling needs, as part of the MSC North Project, would be accommodated through the existing Central Utility Plant (CUP); new boilers are not anticipated to be constructed as part of the MSC North Project. Natural gas emissions for the MSC North Project are based on an increase in load at the CUP.

Inputs into the CalEEMod model include square footages and space types of the proposed concourse. **Table 4-8** presents the concourse space types, square footages, and equivalent CalEEMod space types. The square footages shown in the table are based on the example floor plans in Chapter 2, *Project Description*, of the EIR. Taking into account the LAGBC Tier 1 standards, mitigations measures assumed in modeling for the MSC North building would realize a 15 percent reduction in energy use over the Title 24 standards, 30 percent reduction in potable water use, and 70 percent reduction in solid waste.

Table 4-8

MSC North Concourse Functional Areas

MSC North Concourse Space Type	Square Footage	Equivalent CalEEMod Space Type
Utilities	45,463	Commercial – General Office Building
Secure Circulation	18,786	Commercial – General Office Building
Sterile Circulation	72,628	Commercial – General Office Building
Airline Operations	34,552	Commercial – General Office Building
Gate Areas	15,524	Commercial – General Office Building
Holdrooms	53,317	Commercial – General Office Building
Other	415,331	Commercial – General Office Building
Club Lounge	28,908	Commercial – General Office Building
Non-Concessions Subtotal	684,510	Commercial – General Office Building
Concessions Subtotal	36,775	Retail – Strip Mall
Total	721,285	N/A

Note:

1 Totals may not add due to rounding.

Source: Ricondo & Associates, Inc., 2013.

4.1.2.2.2 Future Phase(s) of the MSC Program

Mobile Sources

Mobile sources quantified for the future phase(s) of the MSC Program are basically the same as for the MSC North Project. However, the MSC Program analysis also includes criteria pollutant emissions for on-airport roadways, as the LAX Master Plan Final EIR did not account for public traffic circulation within the central terminal area (CTA). Busing emissions for the 2025 airport emissions were not quantified since it is assumed that the APM would be operational by 2025.

Aircraft

Airport simulation models (SIMMOD) have been conducted for various alternatives and numerous scenarios since the LAX Master Plan EIR, including the Specific Plan Amendment Study (SPAS) EIR. The SPAS Alternative 3 (LAX Master Plan Alternative D) SIMMOD files were used to determine the taxi arrival and departure times associated with the 2025 Future With MSC Program and the 2025 Future Without MSC Program scenarios. There are four runway use configurations at LAX; as part of SPAS, SIMMOD models were conducted for all of them. The annual use for each runway configuration, as well as the associated taxi arrival and departures times, are shown in **Tables 4-9** for the 2025 Future With MSC Program scenario.

Table 4-9

Runway Configuration and Average Taxi Time, 2025 Future With MSC Program

Configuration	Annual Use	Taxi Times (Minutes)	
		Arrivals	Departures
VFR West	69.2%	10.88	13.29
MVFR West	24.6%	11.00	13.59
MVFR East	2.1%	9.73	15.46
Average VFR	95.9%	10.89	13.42
IFR West	4.1%	9.71	18.92
Average All-weather	100.0%	10.84	13.64

Source: Ricondo & Associates, Inc., 2013.

Taxi times for the 2025 Future Without MSC Program scenario were calculated based on the difference of the all-weather averages between the 2019 Future Without and With MSC North Project scenarios. By calculating the delta between the 2019 Future Without and With Project and multiplying that same delta per number of operations to the 2025 MSC Program total annual operations, taxi times were established for the 2025 Without Program scenario. The arrival and departure times for the 2025 Without Program scenario are shown in **Table 4-10**. The 2012 With MSC Program scenario was assumed to have the same taxi times as the 2012 With MSC North Project scenario, as discussed in Section 4.1.2.2.1.

Table 4-10

Average Taxi Time, 2025 Future Without MSC Program

Configuration	Taxi Times (Minutes)	
	Arrivals	Departures
Average All-weather	10.86	13.72

Source: Ricondo & Associates, Inc., 2013.

Emissions for the 2012 With MSC Program, and 2025 Future Without and With MSC Program were calculated using EDMS. EDMS inputs for the aircraft inventory were based on the following assumptions:

- Default time-in-mode for all modes except taxi/idle/delay (TAD).
- TID time-in-mode taken from the respective average all-weather taxi arrival and departure times for each modeled scenario.
- Climbout, takeoff, and approach were adjusted to reflect the mixing height for LAX, 1,806 feet, rather than the default of 3,000 feet.
- Daily operations per aircraft were based on the 2012 and 2025 DDFSs.
- Aircraft engine assignments were taken from the SPAS EDMS input files.

Ground Support Equipment and Auxiliary Power Units

GSE emissions were quantified in terms of the 2025 analysis conducted for SPAS Alternative 3. As these emissions are a function of aircraft operations, it is assumed that both the 2025 Future Without MSC Program and the 2025 Future With Program Scenarios would have the same emissions from these sources.

APU emissions were calculated based on respective taxi times for each scenario. Although it is assumed that 400 hertz (Hz) electric power and pre-conditioned air would be available at all commercial airline gates, APUs would continue to be used during taxiing; therefore, APU emissions were included in the analysis.

On-Road Vehicles

All vehicles traveling to or from LAX through the Central Terminal Area were considered in the EIR analysis for the existing 2012 conditions, and the 2025 Future Without and With MSC Program scenarios, including: privately-owned vehicles, government-owned vehicles, and commercially owned vehicles, such as rental cars, shuttles, buses, taxicabs, and trucks.

Assumptions used for these vehicles are:

- Temporal traffic data that identifies the vehicle volumes by hour was determined from the traffic analysis (see Section 4.6 of the EIR).
- VMTs calculated for the full distance through CTA (assumed 1.5 miles).
- Average speed (25 mph) obtained from VISSIM Modeling.
- Mode splits were obtained from the traffic analysis (see Section 4.6 of the EIR).

Stationary Sources

The emissions of criteria pollutants associated with on-site stationary sources (natural gas space heaters and water heaters), as well as off-site emissions from purchased electricity, for the 2025 Future Without and With MSC Program were estimated using CalEEMod.

Stationary sources modeled for the 2025 Future With MSC Program were based on facilities located at the Program site; the emissions presented in the EIR are not representative of the whole airport. Estimates of natural gas usage were based on facility size (square feet) and type.

For the 2025 Future Without MSC Program scenario, the 2019 Future With MSC North Project was used, as this assumes that the MSC North Project has been constructed. See above for specific assumptions.

The 2025 Future With MSC Program scenario quantifies the emissions from the operations of the full MSC concourse, estimated at over 1.3 million square feet. Inputs into the CalEEMod model include square footages and space types of the proposed concourse. As floor plans for the MSC program have not yet been established, a ratio of the space types from the MSC North Project was used to estimate the floor space of the full MSC Program concourse. **Table 4-11** presents the concourse space types, square footages, and equivalent CalEEMod space types for the full MSC concourse. The square footages shown in the table are based on the example floor plans in Chapter 2, *Project Description*, of the EIR, and assumptions regarding the future addition to the concourse. Taking into account the LAGBC Tier 1 standards, mitigations measures assumed in modeling for the full MSC concourse would realize a 15 percent reduction in energy use over the Title 24 standards, 30 percent reduction in potable water use, and 70 percent reduction in solid waste.

The MSC Program also includes the CTP and the APM Maintenance facility; however, as these facilities are only conceptually planned, several assumptions based on existing comparable facilities were used for square footage estimates. For purposes of this analysis, it was assumed that the CTP was two floors and a total of approximately 300,000 square feet. The CTP space types were estimated based on a basic terminal facility, including passenger processing, circulation, security, baggage claim, and concessions. **Table 4-12** presents the space types, square footages, and equivalent CalEEMod space types for the CTP. The APM Maintenance facility was sized based on a similar facility at a comparable large-hub airport. The space types, square footages, and equivalent CalEEMod spaces for the APM Maintenance Facility are shown in **Table 4-13**.

Table 4-11

MSC North Full Concourse Functional Areas

MSC North Concourse Space Type	Square Footage	Equivalent CalEEMod Space Type
Non-Concessions Subtotal	1,245,042	Commercial – General Office Building
Concessions Subtotal	66,889	Retail – Strip Mall
Total	1,311,932	N/A

Note:

1 Totals may not add due to rounding.

Source: Ricondo & Associates, Inc., 2013.

Table 4-12

MSC Central Terminal Processor Functional Areas

MSC North Concourse Space Type	Square Footage	Equivalent CalEEMod Space Type
Non-Concessions Subtotal	284,713	Commercial – General Office Building
Concessions Subtotal	15,287	Retail – Strip Mall
Total	300,000	N/A

Note:

1 Totals may not add due to rounding.

Source: Ricondo & Associates, Inc., 2013.

Table 4-13

APM Maintenance Facility Functional Areas

MSC North Concourse Space Type	Square Footage	Equivalent CalEEMod Space Type
Office	6,000	Commercial – General Office Building
APM Maintenance	24,000	Industrial – General Light Industry
Total	30,000	N/A

Note:

1 Totals may not add due to rounding.

Source: Ricondo & Associates, Inc., 2013.

4.1.3 Dispersion Modeling Methodology

4.1.3.1 Construction Sources

General Approach

The project-specific air quality modeling of localized construction impacts was conducted consistent with SCAQMD methodology. The USEPA and SCAQMD-approved dispersion model, AMS/EPA Regulatory Model (AERMOD), was used to model the air quality impacts of NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions. AERMOD can estimate the air quality impacts of single or multiple point, area, or volume sources using historical meteorological conditions. Volume sources are three-dimensional sources of emissions that can be used to model releases from a variety of industrial uses, including moving diesel trucks and equipment; they were used to represent the emissions from trucks, heavy-duty construction equipment, and fugitive dust. To be conservative, this analysis did not calculate PM₁₀ deposition. For the purpose of the dispersion modeling, the maximum daily emissions that could occur due to construction activities from the peak construction year were selected for the LST analysis.

The general approach used for construction dispersion modeling is as follows:

1. Emission rates were established for the peak month of construction for each pollutant.³² The maximum lbs/day were computed based on a peak month average day over the entire construction period. It was assumed that an average workday would result in 16 hours of emissions-generating activity. Therefore, the maximum daily emissions were divided by 16 to convert the maximum daily emissions into emission rates in units of pounds per hour. These emissions were then converted to grams/second.
2. The construction schedule prepared by Connico has the project divided into several sub-tasks based on project components and projected timing. The emissions rate for each sub-task (g/s) was divided by the number of areas for each source to create a series of emission volume sources by task.
3. Release heights were assigned to each source area based on location of exhaust of equipment.
4. Temporal factors were calculated based on the construction schedule and the assumed hours worked per week. As previously discussed, it is assumed there would be 2-8 hour shifts for a total of 16 work hours per day, and a 5 day workweek (Monday through Friday).

Detailed data used in dispersion modeling for construction activities are provided in **Attachment B.2**.

³² Not all sub-tasks/phases of the project fall in the maximum year of construction.

AERMOD Settings

The SCAQMD requires that AERMOD be run using USEPA regulatory default options, unless non-default options are justified; therefore, AERMOD was run using USEPA regulatory default options. Additional modeling options are listed below:

- Urban dispersion (Los Angeles County population of 9,862,049, as per SCAQMD guidance);
- Averaging periods: 1-hour (CO and NO₂), 8-hour (CO), 24-hour (PM₁₀ and PM_{2.5}); Annual (NO₂, PM₁₀ and PM_{2.5})
- Flagpole receptor heights: 1.8 meters; and
- No building downwash (no point sources modeled).

Source and Receptor Locations

Construction activities were assumed to be located at the MSC North Project site based on sub-tasks as shown in Figures 3 and 4.

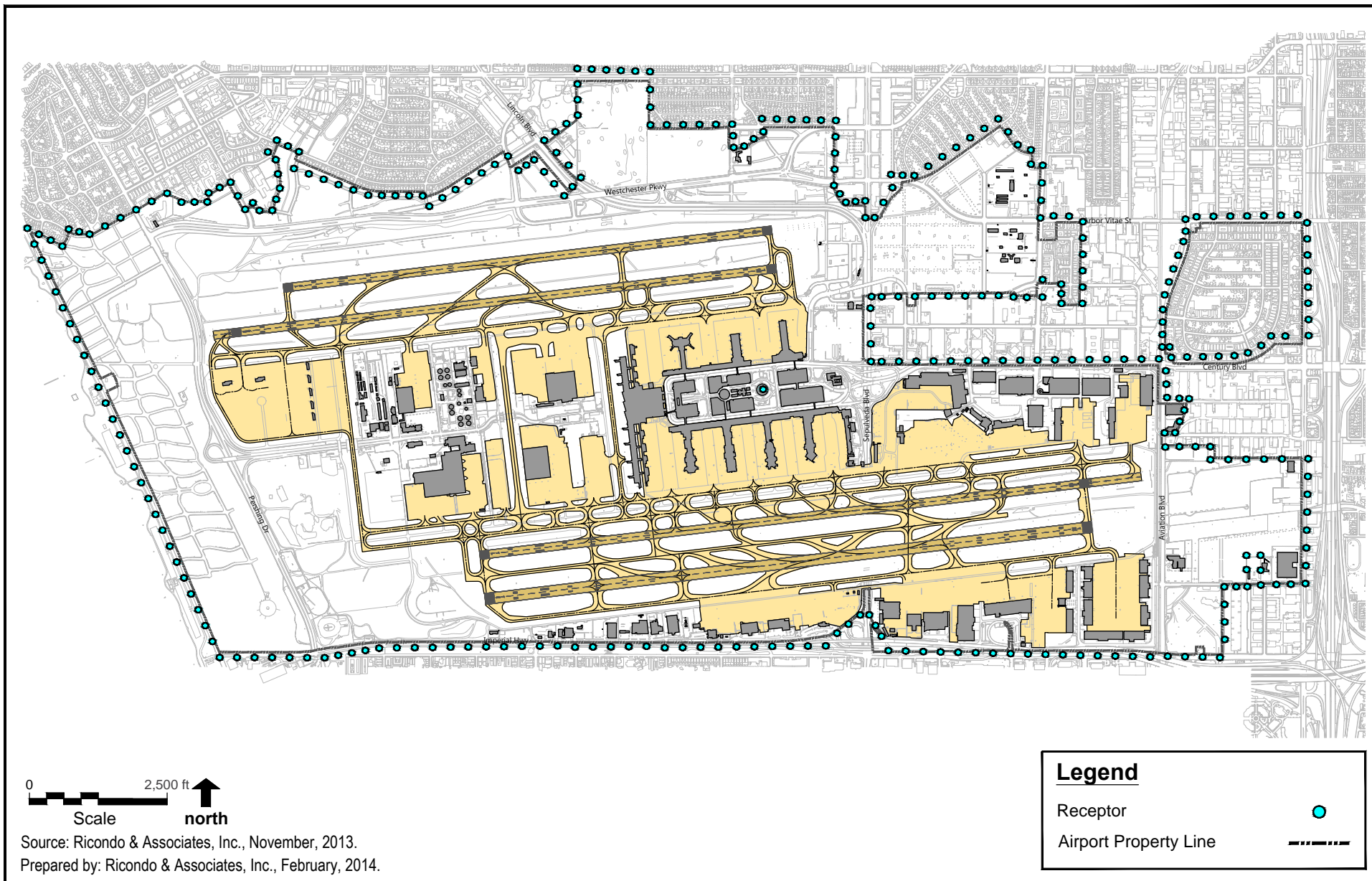
Receptor points are the geographic locations where the air dispersion model calculates air pollutant concentrations. These discrete Cartesian receptors were used to determine air quality impacts in the vicinity of the MSC site. Field receptors were placed at the boundary of LAX (along the fence line), as well as at the Theme Building, as shown in **Figure 7**.

Meteorology

The meteorological data from the monitoring station located at the LAX Hastings site was used in the analysis. The meteorological data were obtained from the SCAQMD website, which were preprocessed using AERMET. AERMET is a meteorological preprocessor for organizing available meteorological data into a format suitable for use in the AERMOD air quality dispersion model. These files were also developed by the SCAQMD using site specific surface characteristics (i.e., surface albedo, surface roughness, and Bowen ratio) obtained using AERSURFACE. AERSURFACE is a tool that provides realistic and reproducible surface characteristic values, including albedo, Bowen ratio, and surface roughness length, for input into AERMET. The dataset used consisted of five years of hourly surface data collected at LAX for calendar years 2005 through 2009; the data included ambient temperature, wind speed, wind direction, and atmospheric stability parameters, as well as mixing height parameters from the appropriate upper air station. All five years of meteorological data were loaded into AERMOD to determine the maximum concentrations over the five year period for each pollutant and averaging period combination.

Ozone Limiting Method for NO₂ Modeling

AERMOD contains the ozone limiting method (OLM) and Plume Volume Molar Ratio Method (PVMRM) options, which are used to model the conversion of NO_x to NO₂. The OLM option was used in this modeling analysis. The SCAQMD provides hourly O₃ data for modeling conversion of NO_x to NO₂ using the OLM option. In addition, the following values were used in the analysis:



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Dispersion Receptor Locations

Figure
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- Ambient Equilibrium NO₂/ NO_x Ratio: 0.90
- In-stack NO₂/ NO_x Ratio: 0.135
- Default Ozone Value: 40 parts per billion (used only for missing data in the hourly O₃ data file provided by the SCAQMD)

4.1.3.2 Operational Sources

Consistent with SCAQMD methodology, localized operational concentrations were predicted through the AERMOD software. EDMS results (categorized by source for each hour) were used for the operations dispersion in AERMOD. Dispersion accounts for location of sources and not just annual or daily emissions inventory; assumptions for dispersion parameters are outlined below.

The source groups from EDMS include Aircraft, Gates, Taxiway Queues, Stationary Sources, and Roadways. Detailed information on these is presented below.

General Approach

The Project-specific air quality modeling of localized operational impacts was conducted consistent with SCAQMD methodology using AERMOD. The dispersion model was based on the emissions inventory, source locations, and hourly meteorological data. By distributing aircraft, GSE, APU, and busing emissions to their respective locations using airport-specific hourly, daily, and monthly temporal factors and pre-processed weather data from SCAQMD, EDMS produces an hourly emissions rate (HRE) file. The HRE file contains all of the emissions broken into hourly bins by source; this file was used as input for each pollutant into AERMOD. Specific data regarding inputs into the dispersion modeling for operational activities are provided in **Attachment B.5**.

An overview of inputs for each emission source group is provided below:

Aircraft:

- As the VFR West flow configuration is predominantly used at LAX (69 percent of the time), the SIMMOD outputs for this configuration were used in the dispersion modeling.
- Runway use percentages were calculated by runway use from the SIMMOD runs and aircraft class (heavy, large, and small) based on each operational year's DDFS.
- Quarter hour profiles for each arrival/departure, aircraft, gate assignment, and runway assignment combination were established based on the peak hour of daily operations.
- Day of the week and monthly operational profiles were obtained from LAWA's Aircraft Noise and Operations Monitoring System (ANOMS) data from calendar year 2012.
- In accordance with EDMS methodology, dynamic sequencing was performed. To align the emissions inventories, a user-adjusted taxiway speed was used for each modeled scenario.

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Gates:

- As predefined by EDMS, the source group for gates includes aircraft startup, GSE, and APUs.
- Aircraft startup emissions were distributed as described above.
- GSE equipment use by gate was established from the distribution of aircraft around the airfield (based on the DDFS) and GSE assignments per aircraft. Equipment that was assumed to be airport-wide and not aircraft specific was distributed based on overall airport annual temporal factors.

Taxiway Queues:

- Corresponding airfield layouts for each scenario were modeled into EDMS and thus AERMOD.
- Taxipaths to/from each runway/gate were defined based on actual operations at LAX and the SIMMOD outputs.

Roadways (Airfield Busing):

- The service roads used for airfield busing were modeled as area sources along the projected route.
- Temporal factors were established based on the DDFS for terminals requiring busing (West Remote Gates, American Eagle Commuter Terminal, and the MSC North).
- Volumes for each route (roadway) were established from the emissions inventory in Section 4.1.2.2.

Stationary Sources

- Stationary source emissions were calculated using CalEEMod (as described in Section 4.1.2.2)
- The aggregated emissions rates for on-site combustion and off-site purchased electricity were modeled as area sources at the respective project locations.
 - The U.S. Coast Guard facility emissions were modeled at its current location.
 - Emissions associated with the MSC North were modeled at the Central Utility Plant.

AERMOD Settings

As required by the SCAQMD, AERMOD was run using USEPA regulatory default options. Additional modeling options are the same as those outlined in Section 4.1.3.1.

In regards to source locations, operational activities were assumed to be located at the respective on-airport locations for individual sources. Aircraft operations were distributed between the taxiways and runways, as well as on the approach and departure paths. GSE and

APU operations were located directly at the gates. Busing operations and stationary sources were modeled as area sources along their respective routes and locations.

Receptor points for operational dispersion modeling were the same as those depicted in Figure 7. Meteorology and the OLM method for NO₂ modeling were the same as those outlined in Section 4.1.3.1.

4.2 Greenhouse Gas Emissions

The greenhouse gas emissions analysis conducted for the MSC North Project addresses construction emissions for mid-2014 through mid-2019, and operational emissions from 2012, 2019 (Future MSC North Project) and 2025 (Future MSC Program). Construction activities analyzed include on-site and off-site construction equipment that would occur during the temporary construction period, estimated to be approximately five years. Operational sources for the MSC North Project (2019) GHG analysis included aircraft, ground support equipment, busing operations, and stationary sources. Operational sources for the future phase(s) of the MSC Program (2025) GHG analysis included aircraft, ground support equipment, on-airport roadways, and stationary sources.

As the LAX Master Plan Final EIR did not analyze greenhouse gas emissions, the GHG analysis in this EIR analyzes greenhouse gas impacts as a result of construction and operation of the MSC North Project at a project-level; the GHG impacts associated with the operation of the MSC Program were examined at a programmatic level.

4.2.1 Construction Sources

In addition to criteria pollutant emissions, construction equipment is a source of GHG emissions. The Project-related construction sources for which GHG emissions were calculated are the same as those calculated for criteria pollutant emissions and include the following:

- Off-Road Construction Equipment
- On-Road Construction Equipment
- Construction Worker Commute Vehicles and Delivery/Haul Trucks

Similar to the methodology used to calculate emissions of criteria pollutants from construction equipment, GHG emissions were calculated by month and divided by the number of work days in the month (assuming a 5-day-per-week workweek) to derive daily emissions.

Detailed data and calculations used to estimate GHG emissions generated from construction activities are provided in **Attachment B.1**.

Off-Road Construction Equipment

In addition to criteria pollutants, OFFROAD2007 provides data for calculating emission factors for GHGs, including CO₂ and CH₄. For off-road on-site equipment, these emission factors were derived and applied using the same methodology described in Section 4.2.2.1 for CO and SO₂. For each equipment type, the appropriate emission factor for CH₄ was multiplied by its global

warming potential (21) and added to the appropriate emission factor for CO₂ (with a global warming potential of 1) to calculate an emission factor of CO_{2e} in lb/hp-hr. This emission factor was then multiplied by equipment horsepower, load factor, an efficiency factor, and monthly operating hours, resulting in monthly GHG emissions.

On-Road On-Site Equipment

EMFAC2011 was used to obtain emission factors of CO₂. These emission factors were obtained and applied using the same methodology described in Section 4.2.2.1 for criteria pollutants. CO₂ emission factors obtained from EMFAC2011 and used in this analysis assume Pavley-I and Low Carbon Fuel Standard (LCFS) benefits.

In accordance with CARB guidance, for heavy-duty vehicles (assumed to be all on-road on-site vehicles except on-site pickup trucks) emission factors for CH₄ were calculated by multiplying the TOG emission factor by 0.0408. N₂O emission factors for all on-road on-site diesel vehicles were calculated by applying a factor of 0.3316 grams/gallon of fuel consumed by the vehicles. EMFAC2011 was used to derive the gallons of fuel consumed per VMT for T7 single construction vehicles by year. The resulting fuel consumption was multiplied by the grams/gallon factor above to derive an emission factor of N₂O in g/mi. This emission factor was then multiplied by an assumed on-site speed of 20 mph, resulting in an emission factor in g/hr.

For on-road gasoline vehicles (i.e., on-site pickup trucks), EMFAC2011-LDV was used to calculate CH₄ emission factors in g/mi and multiplied by an assumed speed of 20 mph to derive emission factors in g/hr. Per CARB guidance, N₂O emission factors for gasoline vehicles were derived by multiplying the appropriate NO_x emission factor (in g/hr) by 4.16 percent.

Once appropriate emission factors for CO₂, CH₄, and N₂O were calculated for each vehicle, a combined emission factor of CO_{2e} was derived by taking the sum of the emission factor of CO₂ (multiplied by a global warming potential of 1), the emission factor for CH₄ (multiplied by a global warming potential of 21) and the emission factor for N₂O (multiplied by a global warming potential of 310). The resulting emission factor of CO_{2e} in g/hr was converted to lb/hr, which was applied to the monthly operating hours for each equipment type to estimate monthly emissions.

Construction Worker Commute Vehicles and Delivery/Haul Trucks

GHG emission factors and resulting emissions for construction worker commute vehicles and delivery/haul trucks were obtained and applied using the same methodology described in Section 4.2.2.1 for criteria pollutants. Emission factors of CO_{2e} were calculated using the same methodology described previously for on-road construction equipment, except that emission factors were derived in lb/mi and multiplied by the monthly operating hours for each equipment type to estimate monthly emissions.

4.2.2 Operational Sources

In addition to criteria pollutant emissions, operations are also a source of GHG emissions. The Project-related operational sources for which GHG emissions were calculated are the same as those calculated for criteria pollutant emissions and include the following:

- Aircraft
- Ground Service Equipment
- Airfield Busing
- Stationary Sources

Program-related operation sources for which GHG emissions were calculated are the same as those calculated for criteria pollutant emissions and include the following:

- Aircraft
- Ground Service Equipment
- On-Road Vehicles
- Stationary Sources

Although operations of APUs are expected to contribute to GHG emissions, EDMS does not estimate CO₂ emissions or fuel consumption; therefore APUs are not included in the emissions inventory.

Detailed data and calculations used to estimate GHG emissions generated from operational sources are provided in **Attachment B.4**.

4.2.2.1 MSC North Project

Aircraft

In addition to criteria pollutants, EDMS also provides aircraft CO₂ emissions. DDFS inputs into EDMS were the same as those outlined in Section 4.1.2.2 for criteria pollutants. CH₄ and N₂O emissions are not directly estimated by EDMS; therefore, it was necessary to estimate emissions using other methods. Emissions were calculated using fuel burn (converted from lbs to gallons) from EDMS and emission factors (in g/gal of fuel) from the U.S. Energy Information Administration. Emission factors for CH₄ and N₂O are shown in **Table 4-14**. Once appropriate emissions for CH₄ and N₂O were calculated, MTCO₂e was calculated by taking the sum of CO₂ emissions (multiplied by a global warming potential of 1), the CH₄ emissions (multiplied by a global warming potential of 21) and the N₂O emissions (multiplied by a global warming potential of 310).

Table 4-14

Jet Fuel GHG Emission Factors

Fuel Type	CH₄ (g/gal fuel)	N₂O (g/gal fuel)
Jet Fuel	0.27	0.31

Source: U.S. Energy Information Administration, "Voluntary Reporting of Greenhouse Gases Program Fuel Emission Coefficients," January 31, 2011, available:
www.eia.gov/oiaf/1605/coefficients.html#tbl7.

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Ground Support Equipment

Data on specific GSE types and times-in-mode were determined based on the data compiled for the criteria pollutant inventory, as discussed in Section 4.2.2.2. However, EDMS does not directly calculate GHG emissions for GSE. Therefore, CO₂, CH₄ and N₂O emissions were calculated generally using the same methodology for off-road construction equipment, as discussed in Section 4.1.2.1. Emission factors for these GHG pollutants were obtained from OFFROAD2007. The specific equation for calculating GHG emissions for GSE is shown in **Equation 4-4** below; annual emissions were calculated in grams and then converted and summed to annual MTCO₂e.

Equation 4-4

GSE GHG Emissions

$$E = HP \times L \times H \times N \times EF$$

Where:

<i>E</i>	=	annual emissions (g)
<i>HP</i>	=	horsepower
<i>L</i>	=	load factor
<i>H</i>	=	annual hours of operation per equipment
<i>N</i>	=	number of pieces of equipment
<i>EF</i>	=	emission factor (g/hp-hr)

Source: Ricondo & Associates, Inc., 2013.

Airfield Busing

Annual busing operations and VMT for the GHG inventory were calculated using the same general methodology for criteria pollutants, as found in Section 4.1.2.2. However, as EDMS does not calculate GHG emissions for roadways, CO₂ emissions were calculated using the same method as on-road vehicles as discussed in Section 4.1.2.1.

The CO₂ emission factor for diesel buses was obtained from EMFAC2011 using the urban bus setting, aggregated fleet mix, annual season average, and an average speed of 20 mph. The CO₂ emission factors obtained from EMFAC2011 and used in this analysis assume Pavley-I and Low Carbon Fuel Standard (LCFS) benefits.

CNG GHG emission factors for urban buses are not currently available from CARB. Therefore, the CNG CO₂ emission factor was calculated using data obtained from the USEPA.³³ The emission factor was presented as kg of CO₂ per standard cubic foot and converted to a g/mi rate.

³³ U.S. Environmental Protection Agency, "Emission Factors for Greenhouse Gas Inventories," September 26, 2011, available: www.epa.gov/climateleadership/documents/emission-factors.pdf.

Stationary Sources

Building emissions could occur directly from natural gas combustion used for space heating and indirectly from electricity and solid waste disposal. In addition to electricity purchased by LAWA and its tenants to operate LAX, electricity is also used indirectly to supply water to LAX and to deliver water and wastewater treatment facilities. The GHG emissions associated with these sources were calculated using CalEEMod. The space types and square footages are the same as those presented in Section 4.1.2.2.

CalEEMod generates GHG emissions results for CO₂, CH₄, and N₂O, which are the GHGs associated with and relevant to the proposed MSC North Project. In CalEEMod, emissions are derived from emission factors published in the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories. Results were quantified in total MTCO₂e for consistency.

4.2.2.2 MSC Program

Aircraft

GHG emissions from aircraft for the 2012 With MSC Program, 2025 Future Without MSC program, and 2025 Future With MSC Program were calculated using EDMS and the same methodology as the MSC North Project, as described in the previous section.

Ground Support Equipment

GHG emissions from GSE were quantified in terms of the 2025 analysis conducted for SPAS Alternative 3. As these emissions are a function of aircraft operations, it is assumed that both the 2025 Future Without MSC Program and the 2025 Future With Program Scenarios would have the same emissions from these sources.

On-Road Vehicles

Annual VMT through the CTA was used for the GHG inventory. CO₂ emissions were calculated using the same method as on-road vehicles as discussed in Section 4.1.2.1.

The CO₂ emission factors for privately-owned vehicles, government-owned vehicles, and commercially owned vehicles, such as rental cars, shuttles, buses, taxicabs, and trucks were obtained from EMFAC2011 using an annual season average and an average speed of 20 mph. The CO₂ emission factors obtained from EMFAC2011 and used in this analysis assume Pavley-I and Low Carbon Fuel Standard (LCFS) benefits.

Stationary Sources

Building emissions could occur directly from natural gas combustion used for space heating and indirectly from electricity and solid waste disposal. In addition to electricity purchased by LAWA and its tenants to operate LAX, electricity is also used indirectly to supply water to LAX and to deliver water and wastewater treatment facilities. The GHG emissions associated with these

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sources were calculated using CalEEMod. The space types and square footages are the same as those presented in Section 4.1.2.2.

In addition to the sources included in the criteria pollutant emissions inventory, GHG emissions also include the purchased electricity (off-site). As such, emissions were also calculated for the APM as this would be an electric system and not contribute to on-site emissions. Using a conceptually planned alignment, emissions were calculated using a ratio of electricity usage from an APM at a comparable large-hub airport. Climate Registry 2013 default emissions factors for natural gas combustion were used to calculate GHG emissions.

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Appendix B

Air Quality and Greenhouse Gas Emissions

Air Quality and Greenhouse Gas Assessment Files

Provided by Ricondo & Associates

January 2014

- B.1 Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations
- B.2 Construction – Localized Significance Thresholds (LST) Dispersion Modeling
- B.3 Construction – Cumulative Emissions Analysis
- B.4 Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations
- B.5 Operations – Localized Significance Thresholds (LST) Dispersion Modeling

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Activities, Crew, Equipment, and Schedule
- On-Site Equipment
 - Specifications
 - Operating Hours
- Off-Site Hauling Trip Data
- Criteria Pollutants – Construction Emissions Summary
- Criteria Pollutants – On-Site Equipment Emission Factors
- Criteria Pollutants – On-Site Equipment Emissions
 - Off-Road On-Site Equipment Emissions
 - On-Road On-Site Equipment Emissions
- Criteria Pollutants – Construction Worker Vehicle Emissions
- Criteria Pollutants – On-Road Off-Site Hauling Emissions
 - On-Road Off-Site Hauling Emission Factors
 - On-Road Off-Site Hauling Emissions
- Fugitive Dust Emission Factors
- GHGs – Construction Emissions Summary
- GHGs – On-Site Equipment Emission Factors
- GHGs – On-Site Equipment Emissions
- GHGs – Construction Worker Vehicle Emissions
- GHGs – On-Road Off-Site Hauling Emissions

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Activities, Crew, Equipment, and Schedule

**LAX MSC North Project Draft EIR
Activities, Crew, Equipment, and Schedule**

Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
Demo American Airlines Maintenance Shop					Dec-15	May-16
General Activities						
2	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	4		
2	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Site Demolition (Existing Site)					Dec-15	Jan-16
10	Site Demo	Sheep's Foot Compactor	1	8		
	Site Demo	Bulldozer D10	1	8		
	Site Demo	Dump Truck 13 CY	4	8		
	Site Demo	Excavator	1	8		
	Site Demo	Motor Grader 14H	1	8		
	Site Demo	Loader 988	1	8		
	Site Demo	Scraper 631	1	8		
Building Demolition (Existing Site)					Jan-16	Feb-16
10	Building Demo	Bulldozer D9	1	8		
	Building Demo	Bulldozer D10	1	8		
	Building Demo	Dump Truck 13 CY	4	8		
	Building Demo	Excavator	1	8		
	Building Demo	Motor Grader 14H	1	8		
	Building Demo	Loader 988	1	8		
	Building Demo	Scraper 631	1	8		
Site Grading (Existing Site)					Feb-16	Mar-16
10	Site Grading - Existing site	Sheep's Foot Compactor	1	8		
	Site Grading - Existing site	Bulldozer D10	1	8		
	Site Grading - Existing site	Dump Truck 13 CY	4	8		
	Site Grading - Existing site	Excavator	1	8		
	Site Grading - Existing site	Motor Grader 14H	1	8		
	Site Grading - Existing site	Loader 988	1	8		
	Site Grading - Existing site	Scraper 631	1	8		
Punch List					Jan-16	Mar-16
8	Punch List	Pickup Truck 1/2 Ton	2	4		

Relocate Electrical Substation					Jul-14	Jun-15
General Activities						
2	Dust Control (7 days / week)	Water Stand	1	1		
	Dust Control (7 days / week)	Water Truck	1	4		
4	Office Staff and Common Equip (5 Day week)	Generator	1	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	2	2		
New substation construction					Jul-14	Jan-15
8	New substation construction	Crane	1	8		
	New substation construction	Pickup Truck 1/2 Ton	2	2		
	New substation construction	Welder	1	8		
4	Labor & Common Equipment (5 Day Week)	Backhoe	1	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	1	8		
	Labor & Common Equipment (5 Day Week)	Generator	1	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	2		
Demolition of existing electrical substation					Jan-15	Mar-15
10	Substation demo	Crusher	1	8		
	Substation demo	Bulldozer D10	1	8		
	Substation demo	Dump Truck 13 CY	4	8		
	Substation demo	Excavator	1	8		
	Substation demo	Motor Grader 14H	1	8		
	Substation demo	Loader 988	1	8		
	Substation demo	Scraper 631	1	8		

Demo American Airlines Leasehold Parking					Dec-15	May-16
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	4		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
Demolition of existing parking area					Dec-15	Jan-16
10	Site Demo	Sheep's Foot Compactor	1	8		
	Site Demo	Bulldozer D10	1	8		
	Site Demo	Dump Truck 13 CY	4	8		
	Site Demo	Excavator	1	8		
	Site Demo	Motor Grader 14H	1	8		
	Site Demo	Loader 988	1	8		
	Site Demo	Scraper 631	1	8		
Site grading of existing site					Jan-16	Feb-16
10	Site Grading - Existing site	Sheep's Foot Compactor	1	8		
	Site Grading - Existing site	Bulldozer D10	1	8		
	Site Grading - Existing site	Dump Truck 13 CY	4	8		
	Site Grading - Existing site	Excavator	1	8		
	Site Grading - Existing site	Motor Grader 14H	1	8		
	Site Grading - Existing site	Loader 988	1	8		
	Site Grading - Existing site	Scraper 631	1	8		
Punch List					Feb-16	Mar-16
2	Punch List	Pickup Truck 1/2 Ton	1	4		

Demo US Coast Guard Facility					Apr-15	Sep-15
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LAX MSC North Project Draft EIR
Activities, Crew, Equipment, and Schedule

Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	4		
3	Material Testing (Owner)	Pickup Truck 1/2 Ton	3	6		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	6		
Existing site demolition					Apr-15	May-15
10	Site Demo	Sheep's Foot Compactor	1	8		
	Site Demo	Bulldozer D10	1	8		
	Site Demo	Dump Truck 13 CY	1	8		
	Site Demo	Excavator	1	8		
	Site Demo	Motor Grader 14H	1	8		
	Site Demo	Loader 988	1	8		
	Site Demo	Scraper 631	1	8		
Existing building demolition					May-15	Jun-15
10	Building Demo	Crusher	1	8		
	Building Demo	Bulldozer D10	1	8		
	Building Demo	Dump Truck 13 CY	2	8		
	Building Demo	Excavator	1	8		
	Building Demo	Motor Grader 14H	1	8		
	Building Demo	Loader 988	1	8		
Existing site grading					Jun-15	Jun-15
10	Site Grading - Existing site	Sheep's Foot Compactor	1	8		
	Site Grading - Existing site	Bulldozer D10	1	8		
	Site Grading - Existing site	Dump Truck 13 CY	2	8		
	Site Grading - Existing site	Excavator	1	8		
	Site Grading - Existing site	Motor Grader 14H	1	8		
	Site Grading - Existing site	Loader 988	1	8		
	Site Grading - Existing site	Scraper 631	1	8		
Punch List					Jun-15	Jul-15
4	Punch List	Pickup Truck 1/2 Ton	1	8		

Relocate US Airways Maintenance Facility					Jul-14	Jan-16
General Activities						
2	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	4		
2	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Construction of new US Air Maintenance Facility					Aug-14	Aug-15
11	Steel Erection & Building Enclosure	Crane	1	8		
	Steel Erection & Building Enclosure	Pickup Truck 1/2 Ton	1	4		
	Steel Erection & Building Enclosure	Welder	1	8		
15	Mechanical, Electrical, Plumbing	Scissor Lift	2	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	4	4		
15	Interior Finishing	Scissor Lift	2	6		
	Interior Finishing	Pickup Truck 1/2 Ton	2	4		
15	Tenant Improvements	Scissor Lift	2	6		
	Tenant Improvements	Pickup Truck 1/2 Ton	2	4		
8	Labor & Common Equipment (5 Day Week)	Backhoe	2	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	2	8		
	Labor & Common Equipment (5 Day Week)	Generator	4	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
12	Office Staff and Common Equip (5 Day week)	Generator	1	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	1	4		
10	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	1	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	1	8		
	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	1	8		
	Site Prep, Foundations, Footings & U/G	Excavator	1	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	1	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	1	8		
Site Demolition (Existing Site)					Aug-15	Sep-15
10	Site Demo	Sheep's Foot Compactor	1	8		
	Site Demo	Bulldozer D10	1	8		
	Site Demo	Dump Truck 13 CY	4	8		
	Site Demo	Excavator	1	8		
	Site Demo	Motor Grader 14H	1	8		
	Site Demo	Loader 988	1	8		
	Site Demo	Scraper 631	1	8		
Building Demolition (Existing Site)					Sep-15	Oct-15
10	Building Demo	Crusher	1	8		
	Building Demo	Bulldozer D10	1	8		
	Building Demo	Dump Truck 13 CY	4	8		
	Building Demo	Excavator	1	8		
	Building Demo	Motor Grader 14H	1	8		
	Building Demo	Loader 988	1	8		
	Building Demo	Scraper 631	1	8		
Site Grading (Existing Site)					Oct-15	Nov-15
10	Site Grading - Existing site	Sheep's Foot Compactor	1	8		
	Site Grading - Existing site	Bulldozer D10	1	8		
	Site Grading - Existing site	Dump Truck 13 CY	4	8		
	Site Grading - Existing site	Excavator	1	8		
	Site Grading - Existing site	Motor Grader 14H	1	8		
	Site Grading - Existing site	Loader 988	1	8		

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Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
	Site Grading - Existing site	Scraper 631	1	8		
	Punch List				Nov-15	Nov-15
8	Punch List	Pickup Truck 1/2 Ton	2	4		

Relocate Water Deluge Tank and Pump Station					Jul-14	Feb-15
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
Construction of new deluge tank and pump station					Aug-14	Oct-14
8	Deluge Tank	Crane	1	8		
	Deluge Tank	Pickup Truck 1/2 Ton	2	2		
	Deluge Tank	Welder	1	8		
10	Mechanical, Electrical, Plumbing	Scissor Lift	3	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	3	6		
	Labor & Common Equipment (5 Day Week)	Backhoe	1	8		
4	Labor & Common Equipment (5 Day Week)	Fork Lift	1	8		
	Labor & Common Equipment (5 Day Week)	Generator	1	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
4	Office Staff and Common Equip (5 Day week)	Generator	2	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	2	8		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	6		
	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	1	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	1	8		
	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	1	8		
10	Site Prep, Foundations, Footings & U/G	Excavator	1	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	1	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	1	8		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Demolition of existing tank and pump station					Oct-14	Nov-14
	Demo	Crusher	1	8		
	Demo	Bulldozer D10	1	8		
	Demo	Dump Truck 13 CY	4	8		
	Demo	Excavator	1	8		
	Demo	Motor Grader 14H	1	8		
	Demo	Loader 988	1	8		
	Demo	Scraper 631	1	8		
Site Grading					Nov-14	Dec-14
	Site Grading - Existing site	Sheep's Foot Compactor	1	8		
	Site Grading - Existing site	Bulldozer D10	1	8		
	Site Grading - Existing site	Dump Truck 13 CY	4	8		
	Site Grading - Existing site	Excavator	1	8		
	Site Grading - Existing site	Motor Grader 14H	1	8		
	Site Grading - Existing site	Loader 988	1	8		
	Site Grading - Existing site	Scraper 631	1	8		
Punch List					Dec-14	Dec-14
4	Punch List	Pickup Truck 1/2 Ton	1	4		

Relocate Electrical Vault #2					Jul-14	Feb-15
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
Construction of new electrical vault					Jul-14	Oct-14
12	Mechanical, Electrical, Plumbing	Scissor Lift	3	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	3	4		
	Labor & Common Equipment (5 Day Week)	Backhoe	2	8		
6	Labor & Common Equipment (5 Day Week)	Fork Lift	1	8		
	Labor & Common Equipment (5 Day Week)	Generator	1	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
4	Office Staff and Common Equip (5 Day week)	Generator	2	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	2	4		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	6		
	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	1	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	1	8		
	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	1	8		
10	Site Prep, Foundations, Footings & U/G	Excavator	1	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	1	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	1	8		
1	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Demolition of existing electrical vault					Oct-14	Nov-14
	Demo	Crusher	1	8		
	Demo	Bulldozer D10	1	8		
	Demo	Dump Truck 13 CY	1	8		
	Demo	Excavator	1	8		
	Demo	Motor Grader 14H	1	8		
	Demo	Loader 988	1	8		
	Demo	Scraper 631	1	8		
Punch List					Nov-14	Dec-14
2	Punch List	Pickup Truck 1/2 Ton	1	4		

**LAX MSC North Project Draft EIR
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Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
Removal RON Aircraft Parking Spaces					Jul-15	Jan-16
General Activities						
6	Labor & Common Equipment (5 Day Week)	Backhoe	2	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	1	8		
	Labor & Common Equipment (5 Day Week)	Generator	1	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
4	Office Staff and Common Equip (5 Day week)	Generator	1	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	1	4		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Pavement demolition					Jul-15	Sep-15
10	Demo	Crusher	1	8		
	Demo	Bulldozer D10	1	8		
	Demo	Dump Truck 13 CY	4	8		
	Demo	Excavator	1	8		
	Demo	Motor Grader 14H	1	8		
	Demo	Loader 988	1	8		
	Demo	Scraper 631	1	8		
Site grading					Sep-15	Oct-15
10	Site Grading - Existing site	Sheep's Foot Compactor	1	8		
	Site Grading - Existing site	Bulldozer D10	1	8		
	Site Grading - Existing site	Dump Truck 13 CY	4	8		
	Site Grading - Existing site	Excavator	1	8		
	Site Grading - Existing site	Motor Grader 14H	1	8		
	Site Grading - Existing site	Loader 988	1	8		
	Site Grading - Existing site	Scraper 631	1	8		
Punch List					Oct-15	Nov-15
2	Punch List	Pickup Truck 1/2 Ton	1	4		

Relocate FAA NAVAIDS					Jul-14	Mar-15
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
Installation of new NAVAIDS					Jul-14	Nov-14
10	FAA NAVAIDS Install	Crane	1	8		
	FAA NAVAIDS Install	Pickup Truck 1/2 Ton	3	4		
	FAA NAVAIDS Install	Welder	3	8		
10	Mechanical, Electrical, Plumbing	Scissor Lift	2	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	2	8		
4	Labor & Common Equipment (5 Day Week)	Backhoe	1	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	1	8		
	Labor & Common Equipment (5 Day Week)	Generator	1	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
4	Office Staff and Common Equip (5 Day week)	Generator	2	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	2	4		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	6		
10	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	1	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	1	8		
	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	1	8		
	Site Prep, Foundations, Footings & U/G	Excavator	1	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	1	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	1	8		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Removal of existing NAVAIDS					Nov-14	Dec-14
20	Demo	Crusher	1	8		
	Demo	Bulldozer D10	1	8		
	Demo	Dump Truck 13 CY	1	8		
	Demo	Excavator	1	8		
	Demo	Motor Grader 14H	1	8		
	Demo	Loader 988	1	8		
	Demo	Scraper 631	1	8		
Punch List					Dec-14	Jan-15
2	Punch List	Pickup Truck 1/2 Ton	1	4		

Reconfigure New Landside/Service Roads					Jul-14	Jun-15
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
4	Office Staff and Common Equip (5 Day week)	Generator	1	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	2	4		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
Site demolition					Jul-14	Sep-14
10	Site Demo	Sheep's Foot Compactor	1	8		
	Site Demo	Bulldozer D10	1	8		
	Site Demo	Dump Truck 13 CY	4	8		
	Site Demo	Excavator	1	8		
	Site Demo	Motor Grader 14H	1	8		
	Site Demo	Loader 988	1	8		
	Site Demo	Scraper 631	1	8		
Excavation					Sep-14	Dec-14

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Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
10	Earthwork	Sheep's Foot Compactor	2	8		
	Earthwork	Bulldozer D10	4	8		
	Earthwork	Dump Truck 13 CY	4	8		
	Earthwork	Excavator	2	8		
	Earthwork	Motor Grader 14H	2	8		
	Earthwork	Loader 988	2	8		
	Earthwork	Scraper 631	2	8		
Tunnel installation					Dec-14	Mar-15
10	Tunnel	Crane	2	8		
	Tunnel	Compactor	1	8		
	Tunnel	Bulldozer D9	1	8		
	Tunnel	Loader 988	1	8		
	Tunnel	End Dump Truck - 15 CY	2	8		
	Tunnel	Haul Truck - 26 CY	2	8		
Roadway installation					Mar-15	Apr-15
10	Paving	Pickup Truck 1/2 Ton	2	8		
	Paving	Asphalt Paver, 7 CY Hopper	1	8		
	Paving	Motor Grader 14H	2	8		
	Paving	Dump Truck 13 CY	4	4		
Punch List					Apr-15	May-15
2	Punch List	Pickup Truck 1/2 Ton	1	4		

Relocate Utility Lines					Jul-14	Nov-16
General Activities						
1	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
Installation of new utility lines					Aug-14	Aug-16
15	Mechanical, Electrical, Plumbing	Scissor Lift	1	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	5	4		
	Labor & Common Equipment (5 Day Week)	Backhoe	5	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	1	8		
	Labor & Common Equipment (5 Day Week)	Generator	1	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
3	Office Staff and Common Equip (5 Day week)	Generator	1	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	1	4		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Shore existing utility lines to remain					Nov-14	May-16
8	Shore existing utility lines	Bulldozer D10	1	8		
	Shore existing utility lines	Dump Truck 13 CY	2	8		
	Shore existing utility lines	Excavator	2	8		
	Shore existing utility lines	Motor Grader 14H	1	8		
	Shore existing utility lines	Loader 988	1	8		
	Shore existing utility lines	Scraper 631	1	8		
Remove/cap utilities to be demolished					Nov-14	May-16
8	Remove/Cap utilities	Dump Truck 13 CY	3	8		
	Remove/Cap utilities	Excavator	2	8		
	Remove/Cap utilities	Motor Grader 14H	1	8		
	Remove/Cap utilities	Loader 988	1	8		
	Remove/Cap utilities	Scraper 631	1	8		
Punch List					Aug-16	Sep-16
2	Punch List	Pickup Truck 1/2 Ton	1	4		

Construct Taxilane C12					May-18	Dec-18
General Activities						
1	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
10	Common Equipment (5-Day calendar)	Concrete Batch Plant	2	8		
	Common Equipment (5-Day calendar)	Fork Lift	1	8		
	Common Equipment (5-Day calendar)	Pickup Truck 1/2 Ton	4	4		
	Common Equipment (5-Day calendar)	Transit Mixer Truck 10 CY	3	6		
2	Dust Control	Water Stand	1	8		
	Dust Control	Water Truck	1	8		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
5	Site Office Staff	Generator	1	8		
	Site Office Staff	Pickup Truck 1/2 Ton	2	4		
2	Labor - Supervision	Pickup Truck 1/2 Ton	2	4		
Site preparation					May-18	Aug-18
3	Survey, Stake, Fencing	Flatbed Truck	1	6		
	Survey, Stake, Fencing	Pickup Truck 1/2 Ton	2	4		
Utility work					Jul-18	Sep-18
10	Underground Utilities	Sheep's Foot Compactor	1	8		
	Underground Utilities	Dump Truck 13 CY	1	8		
	Underground Utilities	Excavator	2	8		
	Underground Utilities	Motor Grader 14H	1	8		
	Underground Utilities	Loader 966	1	8		
	Underground Utilities	Pickup Truck 1/2 Ton	4	4		
	Underground Utilities	Welder/Generator Truck Mount	1	8		
Pavement installation					Sep-18	Nov-18
15	PCC Paving	Air Compressor	2	8		
	PCC Paving	Concrete Drill	2	8		
	PCC Paving	Concrete Paver - Bidwell	2	8		
	PCC Paving	Concrete Saw	2	8		

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Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
10	P-152 & P-209	Compactor	2	8		
	P-152 & P-209	Motor Grader 14H	2	8		
	P-152 & P-209	Asphalt Paver, 7 CY Hopper	2	8		
	P-152 & P-209	Pickup Truck 1/2 Ton	2	4		
10	Apron Edge Type 2 and AC Paving	Asphalt Paver, 7 CY Hopper	1	8		
	Contract Closeout				Dec-18	Dec-18
5	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Air Compressor	2	6		
	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Concrete Saw	2	6		

Construct Taxiway C14					Jul-14	Jun-19
General Activities						
1	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
10	Common Equipment (5-Day calendar)	Concrete Batch Plant	2	8		
	Common Equipment (5-Day calendar)	Fork Lift	1	8		
	Common Equipment (5-Day calendar)	Pickup Truck 1/2 Ton	4	8		
	Common Equipment (5-Day calendar)	Transit Mixer Truck 10 CY	3	6		
2	Dust Control	Water Stand	1	8		
	Dust Control	Water Truck	1	8		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
5	Site Office Staff	Generator	1	8		
	Site Office Staff	Pickup Truck 1/2 Ton	2	4		
2	Labor - Supervision	Pickup Truck 1/2 Ton	2	4		
Site preparation (Phase 1)					Jul-14	Nov-14
3	Survey, Stake, Fencing	Flatbed Truck	1	6		
	Survey, Stake, Fencing	Pickup Truck 1/2 Ton	2	4		
Utility work (Phase 1)					Sep-14	Jan-15
10	Underground Utilities	Sheep's Foot Compactor	1	8		
	Underground Utilities	Dump Truck 13 CY	1	8		
	Underground Utilities	Excavator	2	8		
	Underground Utilities	Motor Grader 14H	1	8		
	Underground Utilities	Loader 966	1	8		
	Underground Utilities	Pickup Truck 1/2 Ton	4	4		
	Underground Utilities	Welder/Generator Truck Mount	1	8		
Pavement installation (Phase 1)					Oct-14	Mar-15
15	PCC Paving	Air Compressor	2	8		
	PCC Paving	Concrete Drill	2	8		
	PCC Paving	Concrete Paver - Bidwell	2	8		
	PCC Paving	Concrete Saw	2	8		
10	P-152 & P-209	Compactor	2	8		
	P-152 & P-209	Motor Grader 14H	2	8		
	P-152 & P-209	Asphalt Paver, 7 CY Hopper	2	8		
	P-152 & P-209	Pickup Truck 1/2 Ton	2	4		
10	Apron Edge Type 2 and AC Paving	Asphalt Paver, 7 CY Hopper	1	8		
5	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Air Compressor	2	6		
	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Concrete Saw	2	6		
Site preparation (Phase 2)					Sep-18	Dec-18
3	Survey, Stake, Fencing	Flatbed Truck	1	6		
	Survey, Stake, Fencing	Pickup Truck 1/2 Ton	2	4		
Utility work (Phase 2)					Oct-18	Feb-19
10	Underground Utilities	Sheep's Foot Compactor	1	8		
	Underground Utilities	Dump Truck 13 CY	1	8		
	Underground Utilities	Excavator	2	8		
	Underground Utilities	Motor Grader 14H	1	8		
	Underground Utilities	Loader 966	1	8		
	Underground Utilities	Pickup Truck 1/2 Ton	4	4		
	Underground Utilities	Welder/Generator Truck Mount	1	8		
Pavement installation (Phase 2)					Nov-18	Mar-19
15	PCC Paving	Air Compressor	2	8		
	PCC Paving	Concrete Drill	2	8		
	PCC Paving	Concrete Paver - Bidwell	2	8		
	PCC Paving	Concrete Saw	2	8		
10	P-152 & P-209	Compactor	2	8		
	P-152 & P-209	Motor Grader 14H	2	8		
	P-152 & P-209	Asphalt Paver, 7 CY Hopper	2	8		
	P-152 & P-209	Pickup Truck 1/2 Ton	2	4		
10	Apron Edge Type 2 and AC Paving	Asphalt Paver, 7 CY Hopper	1	8		
5	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Air Compressor	2	6		
	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Concrete Saw	2	6		

Construct Ramp Tower					Apr-18	May-18
General Activities						
8	Labor & Common Equipment (5 Day Week)	Backhoe	2	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	2	8		
	Labor & Common Equipment (5 Day Week)	Generator	4	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	2	4		
2	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
12	Office Staff and Common Equip (5 Day week)	Generator	1	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	1	4		
2	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	1	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	1	8		

LAX MSC North Project Draft EIR
Activities, Crew, Equipment, and Schedule

Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
10	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	4	8		
	Site Prep, Foundations, Footings & U/G	Excavator	1	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	1	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	1	8		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Structural steel					Apr-18	Apr-18
11	Steel Erection & Building Enclosure	Crane	1	8		
	Steel Erection & Building Enclosure	Pickup Truck 1/2 Ton	2	4		
	Steel Erection & Building Enclosure	Welder	4	8		
Building envelope					Apr-18	May-18
11	Steel Erection & Building Enclosure	Crane	1	8		
	Steel Erection & Building Enclosure	Pickup Truck 1/2 Ton	2	4		
	Steel Erection & Building Enclosure	Welder	4	8		
15	Mechanical, Electrical, Plumbing	Scissor Lift	2	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	4	4		
Interior Construction					May-18	May-18
15	Interior Finishing	Scissor Lift	2	6		
	Interior Finishing	Pickup Truck 1/2 Ton	2	4		
15	Mechanical, Electrical, Plumbing	Scissor Lift	2	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	4	4		
Punch List					May-18	May-18
8	Punch List	Pickup Truck 1/2 Ton	2	4		

Construct Tunnel					Jul-16	Nov-17
General Activities						
6	Labor & Common Equipment (5 Day Week)	Backhoe	3	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	3	8		
	Labor & Common Equipment (5 Day Week)	Generator	6	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	3	4		
2	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
10	Office Staff and Common Equip (5 Day week)	Generator	2	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	5	4		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Excavation and shoring					Jul-16	Mar-17
20	Site Excavation	Sheep's Foot Compactor	1	8		
	Site Excavation	Bulldozer D10	2	8		
	Site Excavation	Dump Truck 13 CY	5	8		
	Site Excavation	Excavator	3	8		
	Site Excavation	Motor Grader 14H	2	8		
	Site Excavation	Loader 988	5	8		
	Site Excavation	Scraper 631	2	8		
Tunnel installation					Jan-17	Aug-17
5	Tunnel Installation	Crane	1	8		
	Tunnel Installation	Pickup Truck 1/2 Ton	2	4		
	Tunnel Installation	Concrete Pump Truck with Boom	2	8		
	Tunnel Installation	Welder	5	8		
15	Mechanical, Electrical, Plumbing	Scissor Lift	5	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	5	4		
Punch List					Aug-17	Sep-17
4	Punch List	Pickup Truck 1/2 Ton	2	4		

Construct MSC Utilities					Jul-15	Oct-16
Installation of new utilities						
15	Mechanical, Electrical, Plumbing	Scissor Lift	5	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	5	4		
10	Labor & Common Equipment (5 Day Week)	Backhoe	2	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	2	8		
	Labor & Common Equipment (5 Day Week)	Generator	5	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	5	4		
2	Dust Control (7 days / week)	Water Stand	1	8		
	Dust Control (7 days / week)	Water Truck	1	8		
10	Office Staff and Common Equip (5 Day week)	Generator	2	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	5	4		
2	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		
2	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
Punch List					Jul-16	Aug-16
2	Punch List	Pickup Truck 1/2 Ton	1	4		

Construct MSC Apron (North)					Jun-18	Jun-19
General Activities						
1	Verification Survey (Owner)	Pickup Truck 1/2 Ton	1	4		
10	Common Equipment (5-Day calendar)	Concrete Batch Plant	2	8		
	Common Equipment (5-Day calendar)	Fork Lift	1	8		
	Common Equipment (5-Day calendar)	Pickup Truck 1/2 Ton	4	4		
	Common Equipment (5-Day calendar)	Transit Mixer Truck 10 CY	3	6		
2	Dust Control	Water Stand	1	8		
	Dust Control	Water Truck	1	8		
1	Material Testing (Owner)	Pickup Truck 1/2 Ton	1	4		

LAX MSC North Project Draft EIR
Activities, Crew, Equipment, and Schedule

Persons on Crew	Activity	Equipment Type	Equipment Quantity	Daily Hours	Start Date	End Date
5	Site Office Staff	Generator	1	8		
	Site Office Staff	Pickup Truck 1/2 Ton	2	4		
3	Survey, Stake, Fencing	Flatbed Truck	1	6		
	Survey, Stake, Fencing	Pickup Truck 1/2 Ton	2	4		
2	Labor - Supervision	Pickup Truck 1/2 Ton	2	4		
Pavement demolition					Jun-18	Nov-18
10	Demo	Crusher	1	8		
	Demo	Bulldozer D10	1	8		
	Demo	Dump Truck 13 CY	4	8		
	Demo	Excavator	1	8		
	Demo	Motor Grader 14H	1	8		
	Demo	Loader 988	1	8		
	Demo	Scraper 631	1	8		
Site preparation					Jun-18	Nov-18
10	Underground Utilities	Sheep's Foot Compactor	1	8		
	Underground Utilities	Dump Truck 13 CY	1	8		
	Underground Utilities	Excavator	2	8		
	Underground Utilities	Motor Grader 14H	1	8		
	Underground Utilities	Loader 966	1	8		
	Underground Utilities	Pickup Truck 1/2 Ton	4	4		
	Underground Utilities	Welder/Generator Truck Mount	1	8		
Pavement installation					Nov-18	Apr-19
10	P-152 & P-209	Compactor	2	8		
	P-152 & P-209	Motor Grader 14H	2	8		
	P-152 & P-209	Asphalt Paver, 7 CY Hopper	2	8		
	P-152 & P-209	Pickup Truck 1/2 Ton	2	4		
15	PCC Paving	Air Compressor	2	8		
	PCC Paving	Concrete Drill	2	8		
	PCC Paving	Concrete Paver - Bidwell	2	8		
	PCC Paving	Concrete Saw	2	8		
10	Apron Edge Type 2 and AC Paving	Asphalt Paver, 7 CY Hopper	1	8		
Contract Closeout					May-19	Jun-19
5	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Air Compressor	2	6		
	Joint Seals, Spall Repairs, 28 Day Cure, Cleanup	Concrete Saw	2	6		

Construct MSC Concourse (North)					Jul-16	Jun-19
General Activities						
50	Labor & Common Equipment (5 Day Week)	Backhoe	5	8		
	Labor & Common Equipment (5 Day Week)	Fork Lift	10	8		
	Labor & Common Equipment (5 Day Week)	Generator	15	8		
	Labor & Common Equipment (5 Day Week)	Pickup Truck 1/2 Ton	25	4		
	Dust Control (7 days / week)	Water Stand	4	8		
	Dust Control (7 days / week)	Water Truck	4	8		
	Office Staff and Common Equip (5 Day week)	Generator	5	8		
	Office Staff and Common Equip (5 Day week)	Pickup Truck 1/2 Ton	10	6		
8	Material Testing (Owner)	Pickup Truck 1/2 Ton	4	6		
4	Verification Survey (Owner)	Pickup Truck 1/2 Ton	2	8		
Site Prep					Jul-16	Mar-17
50	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	2	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	5	8		
	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	15	8		
	Site Prep, Foundations, Footings & U/G	Excavator	5	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	5	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	2	8		
Concrete work					Jan-17	Aug-17
50	Site Prep, Foundations, Footings & U/G	Sheep's Foot Compactor	2	8		
	Site Prep, Foundations, Footings & U/G	Bulldozer D10	5	8		
	Site Prep, Foundations, Footings & U/G	Dump Truck 13 CY	15	8		
	Site Prep, Foundations, Footings & U/G	Excavator	5	8		
	Site Prep, Foundations, Footings & U/G	Motor Grader 14H	1	8		
	Site Prep, Foundations, Footings & U/G	Loader 988	5	8		
	Site Prep, Foundations, Footings & U/G	Scraper 631	2	8		
Structural steel					Jun-17	Dec-17
15	Steel Erection & Building Enclosure	Crane	2	8		
	Steel Erection & Building Enclosure	Pickup Truck 1/2 Ton	5	4		
	Steel Erection & Building Enclosure	Welder	10	8		
Building Envelope					Oct-17	Apr-18
30	Mechanical, Electrical, Plumbing	Scissor Lift	10	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	5	4		
Interior Construction					Apr-18	Apr-19
50	Interior Finishing	Scissor Lift	10	8		
	Interior Finishing	Pickup Truck 1/2 Ton	10	4		
50	Tenant Improvements	Scissor Lift	10	8		
	Tenant Improvements	Pickup Truck 1/2 Ton	10	4		
30	Mechanical, Electrical, Plumbing	Scissor Lift	10	8		
	Mechanical, Electrical, Plumbing	Pickup Truck 1/2 Ton	5	4		
Punch List					Apr-19	May-19
10	Punch List	Pickup Truck 1/2 Ton	5	8		

Source: Connico, Inc., 2013.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- On-Site Equipment Data
 - Specifications
 - Operating Hours

LAX MSC North Project Draft EIR
On-Site Equipment Data - Specifications

Off-Road On-Site Equipment	Make/Model	Fuel	HP	Load Factor	Usage Factor ¹	PM Control Device Reduction ²	OFFROAD2007 Category	OFFROAD2011 Category
Backhoe	John Deere 710D	Diesel	124	0.369	83.3%	74.7%	Tractors/Loaders/Backhoes	Tractors/Loaders/Backhoes
Concrete Batch Plant	-----	Electric	0	0.355	83.3%		Cement and Mortar Mixers	Paving Equipment
Compactor	CAT CB563C	Diesel	145	0.375	83.3%	8.3%	Rollers	Rollers
Air Compressor	Ingersoll-Rand P250WDJ	Diesel	80	0.415	83.3%		Air Compressors	Other Construction Equipment
Sheep's Foot Compactor	CAT CB634C	Diesel	145	0.375	83.3%		Rollers	Rollers
Concrete Drill	-----	Air	0	0.415	83.3%		Concrete/Industrial Saws	Other Construction Equipment
Concrete Pump Truck with Boom	-----	Diesel	430	0.415	83.3%		Other Construction Equipment	Other Construction Equipment
Crane	Grove RT750	Diesel	200	0.288	83.3%		Cranes	Cranes
Crusher	CAT 325L	Diesel	168	0.415	83.3%		Crushing/Proc. Equipment	Other Construction Equipment
Bulldozer D10	CAT D10R	Diesel	570	0.395	83.3%		Rubber Tired Dozers	Rubber Tired Dozers
Bulldozer D9	CAT D9R	Diesel	405	0.395	83.3%		Rubber Tired Dozers	Rubber Tired Dozers
Dump Truck 13 CY	CAT D25D	Diesel	260	0.382	83.3%		Off-Highway Trucks	Off-Highway Trucks
Excavator	CAT 330L	Diesel	222	0.382	83.3%	74.7%	Excavators	Excavators
Fork Lift	Manitou M430CP	Diesel	80	0.201	83.3%		Forklifts	Forklifts
Generator	CAT 3412TA	Diesel	749	0.415	83.3%		Generator Sets	Other Construction Equipment
Motor Grader 14H	CAT 14H	Diesel	215	0.409	83.3%		Graders	Graders
Scissor Lift	-----	Electric	0	0.308	83.3%		Aerial Lifts	Aerial Lifts
Loader 966	CAT 966F	Diesel	220	0.362	83.3%	74.7%	Rubber Tired Loaders	Rubber Tired Loaders
Loader 988	CAT 988F	Diesel	400	0.362	83.3%	74.7%	Rubber Tired Loaders	Rubber Tired Loaders
Concrete Paver - Bidwell	CAT SF-7400	Diesel	460	0.415	83.3%	41.5%	Pavers	Pavers
Asphalt Paver, 7 CY Hopper	Barber-Greene BG270B	Diesel	200	0.415	83.3%	41.5%	Pavers	Pavers
Concrete Saw	Unitec CSR150	Diesel	20	0.415	83.3%		Concrete/Industrial Saws	Other Construction Equipment
Scraper 631	CAT 631E	Diesel	450	0.482	83.3%	8.3%	Scrapers	Scrapers
Water Stand	-----	N/A	0	0.415	83.3%		Other Construction Equipment	Other Construction Equipment
Welder	Lincoln Pipeliner 200G	Diesel	46	0.415	83.3%		Welders	Other Construction Equipment
Welder/Generator Truck Mount	Lincoln Classic 300G	Diesel	53	0.415	83.3%		Welders	Other Construction Equipment

On-Road On-Site Equipment	Make/Model	Fuel	HP	Load Factor	Usage Factor ¹	PM Control Device Reduction ²	EMFAC2011 Category
Flatbed Truck	Freightliner FLD120SD	Diesel	360	1.000	100.0%	85.0%	T7 single construction
Haul Truck	CAT 740	Diesel	436	1.000	100.0%	85.0%	T7 single construction
Water Truck	CAT 766C	Diesel	870	1.000	83.3%	85.0%	T7 single construction
Pickup Truck	Ford F250	Gas	200	1.000	100.0%		LHD2 (light-heavy-duty truck)
Transit Mixer Truck 10 CY	CAT SM-350	Diesel	430	1.000	100.0%	85.0%	T7 single construction
End Dump Truck	Freightliner FLD120SD	Diesel	360	1.000	100.0%	85.0%	T7 single construction

Notes:

HP = horsepower; PM = particulate matter; N/A = not applicable.

¹ Usage factor assumes that equipment operate 50 minutes per hour (50/60 = 83.3%)

¹ Particulate control devices are assumed for certain diesel equipment. Off-road equipment compatability and % reductions are derived from the Final EIR for the Bradley West Project. All on-road diesel trucks are assumed to be fitted with control devices, consistent with the Draft EIR for the West Maintenance Area Project. Emission reductions apply equally to PM₁₀ and PM_{2.5}. Reductions are not assumed for off-road equipment meeting Tier 4 emissions standards (i.e., reductions only modeled for equipment operating in 2014).

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
On-Site Equipment - Operating Hours¹

Off-Road On-Site Equipment	Jul-2014	Aug-2014	Sep-2014	Oct-2014	Nov-2014	Dec-2014	Jan-2015	Feb-2015	Mar-2015	Apr-2015	May-2015	Jun-2015	Jul-2015	Aug-2015	Sep-2015	Oct-2015	Nov-2015	Dec-2015
Backhoe	192	2,448	4,224	4,032	2,736	2,944	2,592	2,240	2,464	2,464	2,352	2,464	2,768	3,216	3,168	2,912	2,352	2,576
Concrete Batch Plant	96	672	704	736	640	736	704	640	-	-	-	-	-	-	-	-	-	-
Compactor	-	-	-	128	640	800	352	320	96	-	-	-	-	-	-	-	-	-
Air Compressor	-	-	-	-	288	736	704	528	144	-	-	-	-	-	-	-	-	-
Sheep's Foot Compactor	144	1,280	1,472	1,744	1,408	1,088	176	-	-	288	32	320	-	240	176	528	16	256
Concrete Drill	-	-	-	-	288	736	704	192	-	-	-	-	-	-	-	-	-	-
Concrete Pump Truck with Boom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crane	96	1,008	1,408	1,376	816	1,120	1,024	640	192	-	-	-	-	-	-	-	-	-
Crusher	-	-	-	240	544	176	224	320	96	-	304	16	48	336	528	48	-	-
Bulldozer D10	144	1,280	1,344	2,352	2,368	1,616	576	640	448	640	672	688	416	912	1,056	928	352	624
Bulldozer D9	-	-	-	-	-	192	352	320	96	-	-	-	-	-	-	-	-	-
Dump Truck 13 CY	288	2,288	2,432	3,008	4,128	3,552	2,832	2,880	2,656	2,176	2,320	2,432	2,032	3,984	4,576	4,064	1,744	2,864
Excavator	144	1,280	1,792	2,352	2,656	3,104	1,984	1,600	1,504	1,696	1,680	1,744	1,520	1,920	2,112	1,984	1,360	1,728
Fork Lift	192	2,192	2,816	2,704	1,776	1,840	1,536	1,280	1,056	1,056	1,008	1,056	1,248	1,536	1,408	1,280	1,008	1,104
Generator	480	5,616	7,040	6,640	4,048	4,048	3,648	3,200	2,912	2,528	2,352	2,464	3,008	4,176	3,872	3,616	3,024	3,312
Motor Grader 14H	144	1,280	1,472	2,112	2,784	2,608	1,104	960	1,312	1,120	1,008	1,040	784	1,248	1,408	1,280	688	992
Scissor Lift	240	2,752	3,168	2,592	1,280	1,104	1,056	960	1,344	2,112	2,016	2,112	2,448	2,496	2,112	2,112	2,016	2,208
Loader 966	-	-	320	368	320	368	176	-	-	-	-	-	-	-	-	-	-	-
Loader 988	144	1,280	1,152	1,616	1,824	1,824	1,280	1,280	896	992	1,008	1,040	784	1,248	1,408	1,280	688	992
Concrete Paver - Bidwell	-	-	-	-	288	736	704	192	-	-	-	-	-	-	-	-	-	-
Asphalt Paver, 7 CY Hopper	-	-	-	128	640	608	176	-	256	64	-	-	-	-	-	-	-	-
Concrete Saw	-	-	-	-	288	736	704	528	144	-	-	-	-	-	-	-	-	-
Scraper 631	144	1,280	1,152	1,616	1,824	1,632	928	960	800	992	704	1,024	784	1,248	1,408	1,280	688	992
Water Stand	710	2,282	2,508	2,622	2,280	1,598	1,452	1,320	1,068	1,408	1,008	1,056	832	1,344	1,408	1,408	672	1,472
Welder	192	1,680	2,112	2,112	1,168	736	320	-	-	-	-	-	-	-	-	-	-	-
Welder/Generator Truck Mount	-	-	320	368	320	368	176	-	-	-	-	-	-	-	-	-	-	-
Total Off-Road On-Site Equipment Hours	3,350	28,618	35,436	38,846	35,352	35,006	25,484	21,000	17,484	17,536	16,464	17,456	16,672	23,904	24,640	22,720	14,608	19,120
On-Road On-Site Equipment	Jul-2014	Aug-2014	Sep-2014	Oct-2014	Nov-2014	Dec-2014	Jan-2015	Feb-2015	Mar-2015	Apr-2015	May-2015	Jun-2015	Jul-2015	Aug-2015	Sep-2015	Oct-2015	Nov-2015	Dec-2015
Flatbed Truck	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haul Truck	-	-	-	-	-	384	704	640	192	-	-	-	-	-	-	-	-	-
Water Truck	728	2,296	2,464	2,576	2,240	1,552	1,408	1,280	928	1,056	672	704	648	1,176	1,232	1,232	672	1,104
Pickup Truck	1,328	10,616	13,488	12,876	8,588	8,736	7,160	5,920	4,672	5,472	4,888	5,120	5,040	6,072	5,808	5,616	4,952	5,520
Transit Mixer Truck 10 CY	108	756	792	828	720	828	792	720	-	-	-	-	-	-	-	-	-	-
End Dump Truck	-	-	-	-	-	384	704	640	192	-	-	-	-	-	-	-	-	-
Total On-Road On-Site Equipment Hours	2,164	13,788	16,744	16,280	11,548	11,884	10,768	9,200	5,984	6,528	5,560	5,824	5,688	7,248	7,040	6,848	5,624	6,624
Total Equipment Hours	5,514	42,406	52,180	55,126	46,900	46,890	36,252	30,200	23,468	24,064	22,024	23,280	22,360	31,152	31,680	29,568	20,232	25,744

Notes:

¹ Equipment hours per month are calculated by multiplying the daily operational hours of each equipment by the number of equipment, by two shifts per day and by the number of work days in the month, based on a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
On-Site Equipment - Operating Hours¹

Off-Road On-Site Equipment	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017
Backhoe	2,352	2,240	2,576	2,352	2,464	-	2,448	2,944	2,816	2,688	2,816	2,816	2,816	2,560	2,944	2,560	2,944	2,816
Concrete Batch Plant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Compactor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air Compressor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sheep's Foot Compactor	432	352	240	-	-	-	16	368	1,056	1,008	1,056	832	736	960	848	640	160	-
Concrete Drill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concrete Pump Truck with Boom	-	-	-	-	-	-	-	-	-	-	-	-	704	640	736	640	736	704
Crane	-	-	-	-	-	-	-	-	-	-	-	-	352	320	368	320	368	384
Crusher	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bulldozer D10	992	928	608	336	240	-	32	736	2,464	2,352	2,464	1,904	1,664	2,240	2,064	1,600	400	-
Bulldozer D9	224	256	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dump Truck 13 CY	4,304	4,032	2,800	1,680	1,200	-	80	1,840	7,040	6,720	7,040	5,360	4,640	6,400	6,080	4,800	1,200	-
Excavator	2,000	1,888	1,712	1,344	960	-	48	1,104	2,816	2,688	2,816	2,256	2,016	2,560	2,176	1,600	400	-
Fork Lift	1,008	960	1,104	1,008	1,056	-	4,128	4,784	4,576	4,368	4,576	4,576	4,576	4,160	4,784	4,160	4,784	4,576
Generator	3,024	2,880	3,312	3,024	3,168	-	8,768	10,304	9,856	9,408	9,856	9,856	9,856	8,960	10,304	8,960	10,304	9,856
Motor Grader 14H	1,328	1,248	976	672	480	-	32	736	1,056	1,008	1,056	944	896	960	592	320	80	-
Scissor Lift	2,016	1,920	2,208	2,016	2,112	-	-	-	-	-	-	-	1,760	1,600	1,840	1,600	1,840	1,760
Loader 966	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loader 988	1,328	1,248	976	672	480	-	80	1,840	3,520	3,360	3,520	2,960	2,720	3,200	2,400	1,600	400	-
Concrete Paver - Bidwell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asphalt Paver, 7 CY Hopper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concrete Saw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scraper 631	1,328	1,248	976	672	480	-	32	736	1,408	1,344	1,408	1,184	1,088	1,280	960	640	160	-
Water Stand	1,344	1,264	1,104	672	704	-	1,600	1,840	1,760	1,680	1,760	1,760	1,760	1,600	1,840	1,600	1,840	1,760
Welder	-	-	-	-	-	-	-	-	-	-	-	-	1,760	1,600	1,840	1,600	1,840	1,920
Welder/Generator Truck Mount	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Off-Road On-Site Equipment Hours	21,680	20,464	18,592	14,448	13,344	-	17,264	27,232	38,368	36,624	38,368	34,448	37,344	39,040	39,776	32,640	27,456	23,776
On-Road On-Site Equipment	Jan-2016	Feb-2016	Mar-2016	Apr-2016	May-2016	Jun-2016	Jul-2016	Aug-2016	Sep-2016	Oct-2016	Nov-2016	Dec-2016	Jan-2017	Feb-2017	Mar-2017	Apr-2017	May-2017	Jun-2017
Flatbed Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Haul Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Truck	1,008	952	920	672	704	-	1,600	1,840	1,760	1,680	1,760	1,760	1,760	1,600	1,840	1,600	1,840	1,760
Pickup Truck	5,040	5,144	5,464	4,536	4,448	-	9,032	10,488	10,672	10,080	10,560	10,560	11,792	10,720	12,328	10,720	12,328	11,832
Transit Mixer Truck 10 CY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
End Dump Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total On-Road On-Site Equipment Hours	6,048	6,096	6,384	5,208	5,152	-	10,632	12,328	12,432	11,760	12,320	12,320	13,552	12,320	14,168	12,320	14,168	13,592
Total Equipment Hours	27,728	26,560	24,976	19,656	18,496	-	27,896	39,560	50,800	48,384	50,688	46,768	50,896	51,360	53,944	44,960	41,624	37,368

Notes:

¹ Equipment hours per month are calculated by multiplying the daily operational hours of each equipment by the number of equipment, by two shifts per day and by the number of work days in the month, based on a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
On-Site Equipment - Operating Hours¹

Off-Road On-Site Equipment	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018
Backhoe	2,688	2,944	1,680	1,760	1,760	1,680	1,840	1,600	1,760	2,192	2,288	1,680	1,760	1,840	1,600	1,840	1,760	1,680
Concrete Batch Plant	-	-	-	-	-	-	-	-	-	-	736	672	1,408	1,472	1,280	2,144	1,408	1,344
Compactor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224	736	352	1,344
Air Compressor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	608	736	576	1,232
Sheep's Foot Compactor	-	-	-	-	-	-	-	-	-	80	-	-	704	736	560	384	544	336
Concrete Drill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	608	736	576	992
Concrete Pump Truck with Boom	672	288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crane	1,008	880	672	704	704	320	-	-	-	224	96	-	-	-	-	-	-	-
Crusher	-	-	-	-	-	-	-	-	-	-	-	-	352	368	320	368	192	-
Bulldozer D10	-	-	-	-	-	-	-	-	-	80	-	-	352	368	320	368	192	-
Bulldozer D9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dump Truck 13 CY	-	-	-	-	-	-	-	-	-	320	-	-	2,112	2,208	1,840	1,856	1,312	336
Excavator	-	-	-	-	-	-	-	-	-	80	-	-	1,760	1,840	1,440	1,136	1,280	672
Fork Lift	4,368	4,784	3,360	3,520	3,520	3,360	3,680	3,200	3,520	3,872	4,496	3,696	4,224	4,416	3,840	4,752	4,224	4,032
Generator	9,408	10,304	6,720	7,040	7,040	6,720	7,360	6,400	7,040	8,000	8,848	7,056	7,744	8,096	7,040	8,432	7,744	7,392
Motor Grader 14H	-	-	-	-	-	-	-	-	-	80	-	-	1,056	1,104	1,104	1,488	1,088	1,680
Scissor Lift	1,680	720	-	1,120	3,520	3,360	3,680	3,200	3,520	9,088	11,632	10,080	10,560	11,040	9,600	11,040	10,560	8,160
Loader 966	-	-	-	-	-	-	-	-	-	-	-	-	704	736	560	384	544	336
Loader 988	-	-	-	-	-	-	-	-	-	80	-	-	352	368	320	368	192	-
Concrete Paver - Bidwell	-	-	-	-	-	-	-	-	-	-	-	-	-	-	608	736	576	992
Asphalt Paver, 7 CY Hopper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	224	736	592	1,344
Concrete Saw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	608	736	576	1,232
Scraper 631	-	-	-	-	-	-	-	-	-	80	-	-	352	368	320	368	192	-
Water Stand	1,680	1,840	1,344	1,408	1,408	1,344	1,472	1,280	1,408	1,600	2,144	1,680	2,112	2,208	2,240	2,576	2,464	2,352
Welder	5,040	4,400	3,360	3,520	3,520	1,600	-	-	-	896	384	-	-	-	-	-	-	-
Welder/Generator Truck Mount	-	-	-	-	-	-	-	-	-	-	-	-	704	736	560	384	544	336
Total Off-Road On-Site Equipment Hours	26,544	26,160	17,136	19,072	21,472	18,384	18,032	15,680	17,248	26,672	30,624	24,864	36,256	37,904	35,824	42,304	37,488	35,792
On-Road On-Site Equipment	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018
Flatbed Truck	-	-	-	-	-	-	-	-	-	-	36	372	264	168	108	12	-	-
Haul Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Truck	1,680	1,840	1,344	1,408	1,408	1,344	1,472	1,280	1,408	1,600	2,144	1,680	2,112	2,208	2,240	2,576	2,464	2,352
Pickup Truck	12,096	12,688	9,336	9,832	9,856	8,968	9,384	8,160	8,976	12,320	16,200	14,104	17,776	18,440	16,240	20,360	18,512	17,288
Transit Mixer Truck 10 CY	-	-	-	-	-	-	-	-	-	-	828	756	1,584	1,656	1,440	2,412	1,584	1,512
End Dump Truck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total On-Road On-Site Equipment Hours	13,776	14,528	10,680	11,240	11,264	10,312	10,856	9,440	10,384	13,920	19,208	16,912	21,736	22,472	20,028	25,360	22,560	21,152
Total Equipment Hours	40,320	40,688	27,816	30,312	32,736	28,696	28,888	25,120	27,632	40,592	49,832	41,776	57,992	60,376	55,852	67,664	60,048	56,944

Notes:

¹ Equipment hours per month are calculated by multiplying the daily operational hours of each equipment by the number of equipment, by two shifts per day and by the number of work days in the month, based on a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
On-Site Equipment - Operating Hours¹

Off-Road On-Site Equipment	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019
Backhoe	1,840	1,600	1,680	-	-	-
Concrete Batch Plant	1,472	992	672	160	-	-
Compactor	1,056	640	32	-	-	-
Air Compressor	1,472	1,216	840	160	480	360
Sheep's Foot Compactor	368	96	-	-	-	-
Concrete Drill	1,472	1,024	672	160	-	-
Concrete Pump Truck with Boom	-	-	-	-	-	-
Crane	-	-	-	-	-	-
Crusher	-	-	-	-	-	-
Bulldozer D10	-	-	-	-	-	-
Bulldozer D9	-	-	-	-	-	-
Dump Truck 13 CY	368	96	-	-	-	-
Excavator	736	192	-	-	-	-
Fork Lift	4,416	3,696	3,696	80	-	-
Generator	8,096	6,896	7,056	80	-	-
Motor Grader 14H	1,424	736	32	-	-	-
Scissor Lift	4,960	3,200	3,360	640	-	-
Loader 966	368	96	-	-	-	-
Loader 988	-	-	-	-	-	-
Concrete Paver - Bidwell	1,472	1,024	672	160	-	-
Asphalt Paver, 7 CY Hopper	1,200	864	368	80	-	-
Concrete Saw	1,472	1,216	840	160	480	360
Scraper 631	-	-	-	-	-	-
Water Stand	2,208	1,920	1,680	80	-	-
Welder	-	-	-	-	-	-
Welder/Generator Truck Mount	368	96	-	-	-	-
Total Off-Road On-Site Equipment Hours	34,768	25,600	21,600	1,760	960	720
On-Road On-Site Equipment	Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019
Flatbed Truck	-	-	-	-	-	-
Haul Truck	-	-	-	-	-	-
Water Truck	2,208	1,920	1,680	80	-	-
Pickup Truck	16,624	12,520	11,360	2,160	160	-
Transit Mixer Truck 10 CY	1,656	1,116	756	180	-	-
End Dump Truck	-	-	-	-	-	-
Total On-Road On-Site Equipment Hours	20,488	15,556	13,796	2,420	160	-
Total Equipment Hours	55,256	41,156	35,396	4,180	1,120	720

Notes:

¹ Equipment hours per month are calculated by multiplying the daily operational hours of each equipment by the number of equipment, by two shifts per day and by the number of work days in the month, based on a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Off-Site Hauling Trip Data

**LAX MSC North Project Draft EIR
Off-Site Hauling Trip Data**

LAX MSC North Project Construction Components	Construction Material Delivery Trips	Concrete Delivery Trips	Base Material Trips	Batch Plant Material Trips	Asphalt Delivery Trips	Cut/Fill (CY)	Cut/Fill Hauling Trips	Pavement Demo (CY)	Pavement Demo Haul Trips	Building Area (sf)	Building Demo (CY)	Building Demo Haul Trips
Demo American Airlines Maintenance Shop	20	20								13,800	1,278	64
Relocate Electrical Substation										520	48	2
Demo American Airlines Leasehold Parking								1,750	88			
Demo US Coast Guard Facility								6,000	300	39,400	3,648	182
Relocate US Airways Maintenance Facility	500	1,900	600					18,350	918	17,600	1,630	81
Relocate Water Deluge Tank and Pump Station	100	100								9,700	898	45
Relocate Electrical Vault #2	100	100								7,700	713	36
Removal RON Aircraft Parking Spaces								16,000	800			
Relocate FAA NAVAIDS	25	10								28,800	2,667	133
Reconfigure New Landside/Service Roads	200	250	250		125			2,500	125			
Relocate Utility Lines	250	500										
Construct Taxilane C12	100		400	400								
Construct Taxiway C14	200		800	800								
Construct Ramp Tower												
Construct Tunnel	500	3,500				570,000	28,500					
Construct MSC Utilities	250	500										
Construct MSC Apron (North)	500		3,200	3,200		300,000	15,000	61,250	3,063			
Construct MSC Concourse (North)	2,000	2,500				200,000	10,000					

Notes:

CY = cubic yards; sf = square feet.
Assumed vehicles include flatbed trucks, haul trucks, and end dump trucks.
Assumed haul truck capacity is 20 cubic yards
Source: Ricondo & Associates, Inc., 2013; Connico, Inc., 2013.

From CalEEMod

1 sf floor space = 10 cf bldg. vol.
1 cf bldg. Vol. = 0.25 cf waste vol.

Assumed Roundtrip Distance (miles)	
Construction Material Deliveries	40
Concrete Deliveries	25
Base Material Deliveries	40
Batch Plant Material Deliveries	40
Asphalt Deliveries	40
Cut/Fill Material Hauling	40
Demolished Pavement Material Hauling ¹	5
Demolished Building Material Hauling	40

Note:

¹ Demolished pavement material is assumed to be hauled to an on-site rock crusher.
Source: Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Off-Site Hauling Trip Data

Construction Material Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Relocate Electrical Substation			20	800		
2014	112	93.3%	19	747	0	7
2015	8	6.7%	1	53	0	7
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate US Airways Maintenance Facility			500	20,000		
2014	102	39.2%	196	7,846	2	77
2015	158	60.8%	304	12,154	2	77
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Water Deluge Tank and Pump Station			100	4,000		
2014	60	100.0%	100	4,000	2	67
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Electrical Vault #2			100	4,000		
2014	60	100.0%	100	4,000	2	67
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate FAA NAVAIDS			25	1,000		
2014	80	100.0%	25	1,000	0	13
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Reconfigure New Landside/Service Roads			200	8,000		
2014	12	16.2%	32	1,297	3	108
2015	62	83.8%	168	6,703	3	108
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Utility Lines			250	10,000		
2014	92	17.7%	44	1,769	0	19
2015	261	50.2%	125	5,019	0	19
2016	167	32.1%	80	3,212	0	19
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct Taxiway C12			100	4,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	50	28.2%	28	1,130	1	23
2017	127	71.8%	72	2,870	1	23
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0

Construction Material Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Construct Taxiway C14			200	8,000		
2014	47	26.6%	53	2,124	1	45
2015	42	23.7%	47	1,898	1	45
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	53	29.9%	60	2,395	1	45
2019	35	19.8%	40	1,582	1	45
Construct Tunnel			500	20,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	160	100.0%	500	20,000	3	125
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct MSC Utilities			250	10,000		
2014	0	0.0%	0	0	0	0
2015	112	43.1%	108	4,308	1	38
2016	148	56.9%	142	5,692	1	38
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct MSC Apron (North)			500	20,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	121	63.7%	318	12,737	3	105
2019	69	36.3%	182	7,263	3	105
Construct MSC Concourse (North)			2,000	80,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	211	39.4%	787	31,493	4	149
2018	257	47.9%	959	38,358	4	149
2019	68	12.7%	254	10,149	4	149

Source: Ricondo & Associates, Inc., 2013; Connico, Inc., 2013.

**LAX MSC North Project Draft EIR
Off-Site Hauling Trip Data**

Concrete Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Relocate Electrical Substation			20	500		
2014	112	93.3%	19	467	0	4
2015	8	6.7%	1	33	0	4
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate US Airways Maintenance Facility			1,900	47,500		
2014	88	88.0%	1,672	41,800	19	475
2015	12	12.0%	228	5,700	19	475
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Water Deluge Tank and Pump Station			100	2,500		
2014	60	100.0%	100	2,500	2	42
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Electrical Vault #2			100	2,500		
2014	10	100.0%	100	2,500	10	250
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate FAA NAVAIDS			10	250		
2014	20	100.0%	10	250	1	13
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Reconfigure New Landside/Service Roads			250	6,250		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	250	6,250	13	313
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Utility Lines			500	12,500		
2014	92	17.7%	88	2,212	1	24
2015	261	50.2%	251	6,274	1	24
2016	167	32.1%	161	4,014	1	24
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct Tunnel			3,500	87,500		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	160	100.0%	3,500	87,500	22	547
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0

Concrete Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Construct MSC Utilities			500	12,500		
2014	0	0.0%	0	0	0	0
2015	112	43.1%	215	5,385	2	48
2016	148	56.9%	285	7,115	2	48
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct MSC Concourse (North)			2,500	62,500		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	80	100.0%	2,500	62,500	31	781
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0

Base Material Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Relocate US Airways Maintenance Facility			600	24,000		
2014	88	88.0%	528	21,120	6	240
2015	12	12.0%	72	2,880	6	240
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Reconfigure New Landside/Service Roads			250	10,000		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	250	10,000	13	500
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct Taxiway C12			400	16,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	75	100.0%	400	16,000	5	213
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct Taxiway C14			800	32,000		
2014	43	57.3%	459	18,347	11	427
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	22	29.3%	235	9,387	11	427
2019	10	13.3%	107	4,267	11	427
Construct MSC Apron (North)			3,200	128,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	31	41.3%	1,323	52,907	43	1,707
2019	44	58.7%	1,877	75,093	43	1,707

Source: Ricondo & Associates, Inc., 2013; Connico, Inc., 2013.

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Off-Site Hauling Trip Data

Batch Plant Material Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Construct Taxiway C12			400	16,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	105	100.0%	400	16,000	4	152
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct Taxiway C14			800	32,000		
2014	32	30.5%	244	9,752	8	305
2015	28	26.7%	213	8,533	8	305
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	10	9.5%	76	3,048	8	305
2019	35	33.3%	267	10,667	8	305
Construct MSC Apron (North)			3,200	128,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	31	31.0%	992	39,680	32	1,280
2019	69	69.0%	2,208	88,320	32	1,280

Asphalt Deliveries						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Reconfigure New Landside/Service Roads			125	5,000		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	125	5,000	6	250
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0

Cut/Fill Material Hauling						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Construct Tunnel			28,500	1,140,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	111	69.4%	19,772	790,875	178	7,125
2017	49	30.6%	8,728	349,125	178	7,125
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct MSC Apron (North)			15,000	600,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	121	63.7%	9,553	382,105	79	3,158
2019	69	36.3%	5,447	217,895	79	3,158
Construct MSC Concourse (North)			10,000	400,000		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	80	100.0%	10,000	400,000	125	5,000
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0

Demolished Pavement Material Hauling						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Demo American Airlines Leasehold Parking			88	438		
2014	0	0.0%	0	0	0	0
2015	2	10.0%	9	44	4	22
2016	18	90.0%	79	394	4	22
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Demo US Coast Guard Facility			300	1,500		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	300	1,500	15	75
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate US Airways Maintenance Facility			918	4,588		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	918	4,588	46	229
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Removal RON Aircraft Parking Spaces			800	4,000		
2014	0	0.0%	0	0	0	0
2015	40	100.0%	800	4,000	20	100
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Reconfigure New Landside/Service Roads			125	625		
2014	40	100.0%	125	625	3	16
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Construct MSC Apron (North)			3,063	15,313		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	100	100.0%	3,063	15,313	31	153
2019	0	0.0%	0	0	0	0

Source: Ricondo & Associates, Inc., 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Off-Site Hauling Trip Data

Demolished Building Material Hauling						
Year	Days	% Year	Total Trips	Total VMT	Trips/Day	VMT/Day
Demo American Airlines Maintenance Shop			64	2,556		
2014	0	0.0%	0	0	0	0
2015	0	0.0%	0	0	0	0
2016	30	100.0%	64	2,556	2	85
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Electrical Substation			2	96		
2014	0	0.0%	0	0	0	0
2015	40	100.0%	2	96	0	2
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Demo US Coast Guard Facility			182	7,296		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	182	7,296	9	365
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate US Airways Maintenance Facility			81	3,259		
2014	0	0.0%	0	0	0	0
2015	20	100.0%	81	3,259	4	163
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Water Deluge Tank and Pump Station			45	1,796		
2014	20	100.0%	45	1,796	2	90
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate Electrical Vault #2			36	1,426		
2014	20	100.0%	36	1,426	2	71
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0
Relocate FAA NAVAIDS			133	5,333		
2014	20	100.0%	133	5,333	7	267
2015	0	0.0%	0	0	0	0
2016	0	0.0%	0	0	0	0
2017	0	0.0%	0	0	0	0
2018	0	0.0%	0	0	0	0
2019	0	0.0%	0	0	0	0

Source: Ricondo & Associates, Inc., 2013; Connico, Inc., 2013.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Criteria Pollutants – Construction Emissions Summary

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Emissions Summary

Carbon Monoxide (CO)						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	2,482	23	108	63.01
	Aug		21,549	21	1,026	
	Sep		26,682	22	1,213	
	Oct	4	28,409	23	1,235	
	Nov		23,505	20	1,175	
	Dec		23,395	23	1,017	
2015	Jan	1	16,393	22	745	75.06
	Feb		13,646	20	682	
	Mar		11,087	22	504	
	Apr	2	11,732	22	533	
	May		10,849	21	517	
	Jun		11,482	22	522	
	Jul	3	11,077	23	482	
	Aug		14,545	21	693	
	Sep		14,569	22	662	
	Oct	4	13,482	22	613	
	Nov		9,589	21	457	
	Dec		11,672	23	507	
2016	Jan	1	11,798	21	562	88.13
	Feb		11,493	20	575	
	Mar		10,684	23	465	
	Apr	2	8,431	21	401	
	May		7,904	22	359	
	Jun		-	22	-	
	Jul	3	12,824	21	611	
	Aug		18,692	23	813	
	Sep		24,438	22	1,111	
	Oct	4	23,253	21	1,107	
	Nov		24,360	22	1,107	
	Dec		22,388	22	1,018	
2017	Jan	1	21,537	22	979	97.03
	Feb		21,889	20	1,094	
	Mar		22,579	23	982	
	Apr	2	18,648	20	932	
	May		16,871	23	734	
	Jun		14,985	22	681	
	Jul	3	15,566	21	741	
	Aug		16,206	23	705	
	Sep		11,066	21	527	
	Oct	4	11,758	22	534	
	Nov		12,092	22	550	
	Dec		10,856	21	517	
2018	Jan	1	10,324	23	449	96.28
	Feb		8,977	20	449	
	Mar		9,875	22	449	
	Apr	2	13,964	21	665	
	May		16,752	23	728	
	Jun		13,761	21	655	
	Jul	3	19,225	22	874	
	Aug		20,010	23	870	
	Sep		18,410	20	921	
	Oct	4	22,383	23	973	
	Nov		19,760	22	898	
	Dec		19,110	21	910	
2019	Jan	1	18,031	23	784	22.87
	Feb		13,771	20	689	
	Mar		12,153	21	579	
	Apr	2	1,373	22	62	
	May		255	23	11	
	Jun		148	20	7	

Carbon Monoxide (CO)		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2014	2015
Demo American Airlines Maintenance Shop		60 Dec
Relocate Electrical Substation	70 Oct	96 Feb
Demo American Airlines Leasehold Parking		14 Dec
Demo US Coast Guard Facility		95 Jun
Relocate US Airways Maintenance Facility	249 Nov	196 Apr
Relocate Water Deluge Tank and Pump Station	216 Aug	
Relocate Electrical Vault #2	143 Aug	
Removal RON Aircraft Parking Spaces		139 Aug
Relocate FAA NAVAIDS	209 Aug	3 Jan
Reconfigure New Landside/Service Roads	199 Oct	83 Feb
Relocate Utility Lines	249 Dec	231 Feb
Construct Taxilane C12		
Construct Taxiway C14	262 Dec	184 Jan
Construct Ramp Tower		
Construct Tunnel		
Construct MSC Utilities		202 Dec
Construct MSC Apron (North)		
Construct MSC Concourse (North)		

Carbon Monoxide (CO)		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2016	2017
Demo American Airlines Maintenance Shop	107 Feb	
Relocate Electrical Substation		
Demo American Airlines Leasehold Parking	76 Jan	
Demo US Coast Guard Facility		
Relocate US Airways Maintenance Facility		
Relocate Water Deluge Tank and Pump Station		
Relocate Electrical Vault #2		
Removal RON Aircraft Parking Spaces		
Relocate FAA NAVAIDS		
Reconfigure New Landside/Service Roads		
Relocate Utility Lines	216 Jan	
Construct Taxilane C12		
Construct Taxiway C14		
Construct Ramp Tower		
Construct Tunnel	325 Sep	379 Jan
Construct MSC Utilities	186 Jan	
Construct MSC Apron (North)		
Construct MSC Concourse (North)	783 Oct	715 Mar

Carbon Monoxide (CO)		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2018	2019
Demo American Airlines Maintenance Shop		
Relocate Electrical Substation		
Demo American Airlines Leasehold Parking		
Demo US Coast Guard Facility		
Relocate US Airways Maintenance Facility		
Relocate Water Deluge Tank and Pump Station		
Relocate Electrical Vault #2		
Removal RON Aircraft Parking Spaces		
Relocate FAA NAVAIDS		
Reconfigure New Landside/Service Roads		
Relocate Utility Lines		
Construct Taxilane C12	146 Sep	
Construct Taxiway C14	172 Dec	164 Jan
Construct Ramp Tower	110 Apr	
Construct Tunnel		
Construct MSC Utilities		
Construct MSC Apron (North)	182 Jul	162 Feb
Construct MSC Concourse (North)	578 May	466 Jan

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Emissions Summary

Volatile Organic Compounds (VOCs)						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	249	23	11	6.03
	Aug		2,110	21	100	
	Sep		2,607	22	118	
	Oct	4	2,708	23	118	
	Nov		2,180	20	109	
	Dec		2,199	23	96	
2015	Jan	1	1,587	22	72	7.11
	Feb		1,319	20	66	
	Mar		1,070	22	49	
	Apr	2	1,098	22	50	
	May		1,007	21	48	
	Jun		1,062	22	48	
	Jul	3	1,045	23	45	
	Aug		1,372	21	65	
	Sep		1,362	22	62	
	Oct	4	1,267	22	58	
	Nov		921	21	44	
	Dec		1,112	23	48	
2016	Jan	1	1,126	21	54	8.98
	Feb		1,097	20	55	
	Mar		1,042	23	45	
	Apr	2	832	21	40	
	May		785	22	36	
	Jun		-	22	-	
	Jul	3	1,381	21	66	
	Aug		1,991	23	87	
	Sep		2,504	22	114	
	Oct	4	2,383	21	113	
	Nov		2,496	22	113	
	Dec		2,317	22	105	
2017	Jan	1	2,322	22	106	10.70
	Feb		2,316	20	116	
	Mar		2,390	23	104	
	Apr	2	1,974	20	99	
	May		1,865	23	81	
	Jun		1,685	22	77	
	Jul	3	1,793	21	85	
	Aug		1,853	23	81	
	Sep		1,269	21	60	
	Oct	4	1,344	22	61	
	Nov		1,374	22	62	
	Dec		1,211	21	58	
2018	Jan	1	1,160	23	50	10.53
	Feb		1,009	20	50	
	Mar		1,110	22	50	
	Apr	2	1,532	21	73	
	May		1,840	23	80	
	Jun		1,515	21	72	
	Jul	3	2,093	22	95	
	Aug		2,177	23	95	
	Sep		1,989	20	99	
	Oct	4	2,424	23	105	
	Nov		2,140	22	97	
	Dec		2,078	21	99	
2019	Jan	1	2,015	23	88	2.58
	Feb		1,559	20	78	
	Mar		1,392	21	66	
	Apr	2	151	22	7	
	May		24	23	1	
	Jun		13	20	1	

Volatile Organic Compounds (VOCs)		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2014	2015
Demo American Airlines Maintenance Shop		5 Dec
Relocate Electrical Substation	7 Nov	8 Feb
Demo American Airlines Leasehold Parking		1 Dec
Demo US Coast Guard Facility		8 Jun
Relocate US Airways Maintenance Facility	24 Nov	19 Apr
Relocate Water Deluge Tank and Pump Station	21 Aug	
Relocate Electrical Vault #2	14 Aug	
Removal RON Aircraft Parking Spaces		12 Aug
Relocate FAA NAVAIDS	21 Aug	0 Jan
Reconfigure New Landside/Service Roads	16 Oct	9 Mar
Relocate Utility Lines	23 Dec	21 May
Construct Taxilane C12		
Construct Taxiway C14	25 Dec	18 Jan
Construct Ramp Tower		
Construct Tunnel		
Construct MSC Utilities		21 Aug
Construct MSC Apron (North)		
Construct MSC Concourse (North)		

Volatile Organic Compounds (VOCs)		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2016	2017
Demo American Airlines Maintenance Shop	9 Feb	
Relocate Electrical Substation		
Demo American Airlines Leasehold Parking	7 Jan	
Demo US Coast Guard Facility		
Relocate US Airways Maintenance Facility		
Relocate Water Deluge Tank and Pump Station		
Relocate Electrical Vault #2		
Removal RON Aircraft Parking Spaces		
Relocate FAA NAVAIDS		
Reconfigure New Landside/Service Roads		
Relocate Utility Lines	20 Jan	
Construct Taxilane C12		
Construct Taxiway C14		
Construct Ramp Tower		
Construct Tunnel	34 Aug	42 Jan
Construct MSC Utilities	20 Jan	
Construct MSC Apron (North)		
Construct MSC Concourse (North)	79 Sep	73 Feb

Volatile Organic Compounds (VOCs)		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2018	2019
Demo American Airlines Maintenance Shop		
Relocate Electrical Substation		
Demo American Airlines Leasehold Parking		
Demo US Coast Guard Facility		
Relocate US Airways Maintenance Facility		
Relocate Water Deluge Tank and Pump Station		
Relocate Electrical Vault #2		
Removal RON Aircraft Parking Spaces		
Relocate FAA NAVAIDS		
Reconfigure New Landside/Service Roads		
Relocate Utility Lines		
Construct Taxilane C12	15 Sep	
Construct Taxiway C14	18 Dec	17 Jan
Construct Ramp Tower	12 Apr	
Construct Tunnel		
Construct MSC Utilities		
Construct MSC Apron (North)	20 Jul	19 Feb
Construct MSC Concourse (North)	63 Jul	53 Jan

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Emissions Summary

Nitrogen Oxides (NO _x)						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	2,181	23	95	59.05
	Aug		19,823	21	944	
	Sep		23,844	22	1,084	
	Oct	4	26,380	23	1,147	
	Nov		23,117	20	1,156	
	Dec		22,746	23	989	
2015	Jan	1	4,387	22	199	15.51
	Feb		3,604	20	180	
	Mar		2,539	22	115	
	Apr	2	2,226	22	101	
	May		1,962	21	93	
	Jun		1,978	22	90	
	Jul	3	1,926	23	84	
	Aug		2,843	21	135	
	Sep		2,870	22	130	
	Oct	4	2,622	22	119	
	Nov		1,778	21	85	
	Dec		2,277	23	99	
2016	Jan	1	2,386	21	114	26.73
	Feb		2,290	20	114	
	Mar		2,148	23	93	
	Apr	2	1,694	21	81	
	May		1,621	22	74	
	Jun		-	22	-	
	Jul	3	3,080	21	147	
	Aug		6,431	23	280	
	Sep		8,762	22	398	
	Oct	4	8,356	21	398	
	Nov		8,753	22	398	
	Dec		7,937	22	361	
2017	Jan	1	7,579	22	345	28.30
	Feb		7,403	20	370	
	Mar		6,419	23	279	
	Apr	2	4,785	20	239	
	May		4,487	23	195	
	Jun		4,059	22	184	
	Jul	3	4,620	21	220	
	Aug		4,605	23	200	
	Sep		3,157	21	150	
	Oct	4	3,323	22	151	
	Nov		3,351	22	152	
	Dec		2,814	21	134	
2018	Jan	1	2,657	23	116	29.26
	Feb		2,311	20	116	
	Mar		2,542	22	116	
	Apr	2	3,343	21	159	
	May		4,323	23	188	
	Jun		3,668	21	175	
	Jul	3	6,221	22	283	
	Aug		6,439	23	280	
	Sep		6,035	20	302	
	Oct	4	7,555	23	328	
	Nov		6,305	22	287	
	Dec		7,130	21	340	
2019	Jan	1	7,385	23	321	9.44
	Feb		5,864	20	293	
	Mar		4,863	21	232	
	Apr	2	674	22	31	
	May		62	23	3	
	Jun		40	20	2	

Nitrogen Oxides (NO _x)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2014	2015
Demo American Airlines Maintenance Shop			12 Dec
Relocate Electrical Substation	72 Aug		19 Feb
Demo American Airlines Leasehold Parking			5 Dec
Demo US Coast Guard Facility			20 May
Relocate US Airways Maintenance Facility	252 Nov		36 Jan
Relocate Water Deluge Tank and Pump Station	188 Aug		
Relocate Electrical Vault #2	129 Aug		
Removal RON Aircraft Parking Spaces			30 Aug
Relocate FAA NAVAIDS	178 Aug		0 Jan
Reconfigure New Landside/Service Roads	243 Oct		50 Jan
Relocate Utility Lines	254 Dec		41 Feb
Construct Taxilane C12			
Construct Taxiway C14	194 Dec		54 Jan
Construct Ramp Tower			
Construct Tunnel			
Construct MSC Utilities			41 Dec
Construct MSC Apron (North)			
Construct MSC Concourse (North)			

Nitrogen Oxides (NO _x)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2016	2017
Demo American Airlines Maintenance Shop	20 Feb		
Relocate Electrical Substation			
Demo American Airlines Leasehold Parking	16 Jan		
Demo US Coast Guard Facility			
Relocate US Airways Maintenance Facility			
Relocate Water Deluge Tank and Pump Station			
Relocate Electrical Vault #2			
Removal RON Aircraft Parking Spaces			
Relocate FAA NAVAIDS			
Reconfigure New Landside/Service Roads			
Relocate Utility Lines	41 Feb		
Construct Taxilane C12			
Construct Taxiway C14			
Construct Ramp Tower			
Construct Tunnel	167 Aug		201 Feb
Construct MSC Utilities	40 Jan		
Construct MSC Apron (North)			
Construct MSC Concourse (North)	231 Sep		169 Feb

Nitrogen Oxides (NO _x)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2018	2019
Demo American Airlines Maintenance Shop			
Relocate Electrical Substation			
Demo American Airlines Leasehold Parking			
Demo US Coast Guard Facility			
Relocate US Airways Maintenance Facility			
Relocate Water Deluge Tank and Pump Station			
Relocate Electrical Vault #2			
Removal RON Aircraft Parking Spaces			
Relocate FAA NAVAIDS			
Reconfigure New Landside/Service Roads			
Relocate Utility Lines			
Construct Taxilane C12	58 Oct		
Construct Taxiway C14	61 Dec		60 Jan
Construct Ramp Tower	32 Apr		
Construct Tunnel			
Construct MSC Utilities			
Construct MSC Apron (North)	141 Dec		142 Feb
Construct MSC Concourse (North)	130 May		119 Jan

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Emissions Summary

Sulfur Oxides (SO _x)						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	5	23	0	0.14
	Aug		49	21	2	
	Sep		60	22	3	
	Oct	4	65	23	3	
	Nov		56	20	3	
2015	Dec		55	23	2	
	Jan	1	42	22	2	0.19
	Feb		35	20	2	
	Mar		29	22	1	
	Apr	2	28	22	1	
	May		26	21	1	
	Jun		28	22	1	
	Jul	3	27	23	1	
	Aug		39	21	2	
	Sep		39	22	2	
	Oct	4	36	22	2	
	Nov		25	21	1	
	Dec		31	23	1	
2016	Jan	1	34	21	2	0.28
	Feb		33	20	2	
	Mar		30	23	1	
	Apr	2	24	21	1	
	May		22	22	1	
	Jun		-	22	-	
	Jul	3	40	21	2	
	Aug		63	23	3	
	Sep		83	22	4	
	Oct	4	79	21	4	
2017	Nov		83	22	4	
	Dec		76	22	3	
	Jan	1	75	22	3	0.31
	Feb		75	20	4	
	Mar		75	23	3	
	Apr	2	61	20	3	
	May		55	23	2	
	Jun		48	22	2	
	Jul	3	48	21	2	
	Aug		51	23	2	
	Sep		34	21	2	
	Oct	4	35	22	2	
2018	Nov		36	22	2	0.30
	Dec		33	21	2	
	Jan	1	35	23	2	
	Feb		31	20	2	
	Mar		34	22	2	
	Apr	2	44	21	2	
	May		50	23	2	
	Jun		41	21	2	
	Jul	3	60	22	3	
	Aug		62	23	3	
	Sep		57	20	3	
2019	Oct	4	69	23	3	0.08
	Nov		60	22	3	
	Dec		60	21	3	
	Jan	1	62	23	3	
	Feb		49	20	2	
	Mar		43	21	2	
	Apr	2	4	22	0	
	May		0	23	0	
	Jun		0	20	0	

Sulfur Oxides (SO _x)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2014	2015
Demo American Airlines Maintenance Shop			0.2 Dec
Relocate Electrical Substation	0.2 Sep		0.3 Feb
Demo American Airlines Leasehold Parking			0.0 Dec
Demo US Coast Guard Facility			0.2 Jun
Relocate US Airways Maintenance Facility	0.6 Nov		0.4 May
Relocate Water Deluge Tank and Pump Station	0.5 Aug		
Relocate Electrical Vault #2	0.3 Aug		
Removal RON Aircraft Parking Spaces			0.4 Aug
Relocate FAA NAVAIDS	0.4 Aug		0.0 Jan
Reconfigure New Landside/Service Roads	0.5 Oct		0.2 Jan
Relocate Utility Lines	0.6 Dec		0.6 Feb
Construct Taxilane C12			
Construct Taxiway C14	0.5 Dec		0.4 Jan
Construct Ramp Tower			
Construct Tunnel			
Construct MSC Utilities			0.5 Aug
Construct MSC Apron (North)			
Construct MSC Concourse (North)			

Sulfur Oxides (SO _x)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2016	2017
Demo American Airlines Maintenance Shop	0.3 Feb		
Relocate Electrical Substation			
Demo American Airlines Leasehold Parking	0.2 Jan		
Demo US Coast Guard Facility			
Relocate US Airways Maintenance Facility			
Relocate Water Deluge Tank and Pump Station			
Relocate Electrical Vault #2			
Removal RON Aircraft Parking Spaces			
Relocate FAA NAVAIDS			
Reconfigure New Landside/Service Roads			
Relocate Utility Lines	0.6 Jan		
Construct Taxilane C12			
Construct Taxiway C14			
Construct Ramp Tower			
Construct Tunnel	1.3 Aug		1.4 Jan
Construct MSC Utilities	0.5 Mar		
Construct MSC Apron (North)			
Construct MSC Concourse (North)	2.5 Sep		2.3 Feb

Sulfur Oxides (SO _x)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2018	2019
Demo American Airlines Maintenance Shop			
Relocate Electrical Substation			
Demo American Airlines Leasehold Parking			
Demo US Coast Guard Facility			
Relocate US Airways Maintenance Facility			
Relocate Water Deluge Tank and Pump Station			
Relocate Electrical Vault #2			
Removal RON Aircraft Parking Spaces			
Relocate FAA NAVAIDS			
Reconfigure New Landside/Service Roads			
Relocate Utility Lines			
Construct Taxilane C12	0.4 Sep		
Construct Taxiway C14	0.5 Dec		0.5 Jan
Construct Ramp Tower	0.4 Apr		
Construct Tunnel			
Construct MSC Utilities			
Construct MSC Apron (North)	0.6 Jul		0.6 Feb
Construct MSC Concourse (North)	1.8 May		1.6 Jan

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Emissions Summary

Respirable Particulate Matter (PM ₁₀)						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	507	23	22	13.17
	Aug		4,226	21	201	
	Sep		4,737	22	215	
	Oct	4	5,772	23	251	
	Nov		5,701	20	285	
2015	Dec		5,396	23	235	13.64
	Jan	1	2,994	22	136	
	Feb		2,631	20	132	
	Mar		1,969	22	90	
	Apr	2	2,128	22	97	
	May		1,890	21	90	
	Jun		2,121	22	96	
	Jul	3	1,679	23	73	
	Aug		2,688	21	128	
	Sep		2,909	22	132	
	Oct	4	2,687	22	122	
	Nov		1,478	21	70	
	Dec		2,102	23	91	
2016	Jan	1	2,733	21	130	20.32
	Feb		2,601	20	130	
	Mar		2,054	23	89	
	Apr	2	1,409	21	67	
	May		1,148	22	52	
	Jun		-	22	-	
	Jul	3	1,026	21	49	
	Aug		3,844	23	167	
	Sep		6,782	22	308	
	Oct	4	6,465	21	308	
2017	Nov		6,773	22	308	14.61
	Dec		5,800	22	264	
	Jan	1	5,297	22	241	
	Feb		5,834	20	292	
	Mar		4,767	23	207	
	Apr	2	3,406	20	170	
	May		1,901	23	83	
	Jun		1,290	22	59	
	Jul	3	1,377	21	66	
	Aug		1,374	23	60	
2018	Sep		967	21	46	14.32
	Oct	4	1,025	22	47	
	Nov		1,048	22	48	
	Dec		931	21	44	
	Jan	1	951	23	41	
	Feb		827	20	41	
	Mar		909	22	41	
	Apr	2	1,444	21	69	
	May		1,727	23	75	
	Jun		1,481	21	71	
2019	Jul	3	3,267	22	149	5.04
	Aug		3,398	23	148	
	Sep		3,214	20	161	
	Oct	4	3,971	23	173	
	Nov		3,535	22	161	
	Dec		3,923	21	187	
	Jan	1	3,958	23	172	
	Feb		3,026	20	151	
	Mar		2,408	21	115	
	Apr	2	658	22	30	
	May		21	23	1	
	Jun		7	20	0	

Respirable Particulate Matter (PM ₁₀)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2014	2015
Demo American Airlines Maintenance Shop			20 Dec
Relocate Electrical Substation		7 Nov	29 Feb
Demo American Airlines Leasehold Parking			4 Dec
Demo US Coast Guard Facility			31 Jun
Relocate US Airways Maintenance Facility		52 Nov	32 Oct
Relocate Water Deluge Tank and Pump Station		46 Aug	
Relocate Electrical Vault #2		23 Aug	
Removal RON Aircraft Parking Spaces			34 Sep
Relocate FAA NAVAIDS		40 Aug	0 Jan
Reconfigure New Landside/Service Roads		78 Oct	25 Jan
Relocate Utility Lines		61 Dec	53 Jul
Construct Taxilane C12			
Construct Taxiway C14		47 Dec	25 Jan
Construct Ramp Tower			
Construct Tunnel			
Construct MSC Utilities			14 Aug
Construct MSC Apron (North)			
Construct MSC Concourse (North)			

Respirable Particulate Matter (PM ₁₀)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2016	2017
Demo American Airlines Maintenance Shop		36 Feb	
Relocate Electrical Substation			
Demo American Airlines Leasehold Parking		32 Jan	
Demo US Coast Guard Facility			
Relocate US Airways Maintenance Facility			
Relocate Water Deluge Tank and Pump Station			
Relocate Electrical Vault #2			
Removal RON Aircraft Parking Spaces			
Relocate FAA NAVAIDS			
Reconfigure New Landside/Service Roads			
Relocate Utility Lines		53 Jan	
Construct Taxilane C12			
Construct Taxiway C14			
Construct Ramp Tower			
Construct Tunnel		130 Sep	141 Feb
Construct MSC Utilities		14 Mar	
Construct MSC Apron (North)			
Construct MSC Concourse (North)		177 Sep	150 Mar

Respirable Particulate Matter (PM ₁₀)			
LAX MSC North Project Construction Component		Max Emissions (lb/day)	
		2018	2019
Demo American Airlines Maintenance Shop			
Relocate Electrical Substation			
Demo American Airlines Leasehold Parking			
Demo US Coast Guard Facility			
Relocate US Airways Maintenance Facility			
Relocate Water Deluge Tank and Pump Station			
Relocate Electrical Vault #2			
Removal RON Aircraft Parking Spaces			
Relocate FAA NAVAIDS			
Reconfigure New Landside/Service Roads			
Relocate Utility Lines			
Construct Taxilane C12		33 Oct	
Construct Taxiway C14		39 Dec	36 Jan
Construct Ramp Tower		14 Apr	
Construct Tunnel			
Construct MSC Utilities			
Construct MSC Apron (North)		89 Dec	90 Feb
Construct MSC Concourse (North)		58 Sep	48 Jan

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Emissions Summary

Fine Particulate Matter (PM _{2.5})						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	168	23	7	4.90
	Aug		1,569	21	75	
	Sep		1,823	22	83	
	Oct	4	2,218	23	96	
	Nov		2,092	20	105	
	Dec		1,923	23	84	
2015	Jan	1	658	22	30	2.80
	Feb		551	20	28	
	Mar		394	22	18	
	Apr	2	441	22	20	
	May		379	21	18	
	Jun		446	22	20	
	Jul	3	317	23	14	
	Aug		552	21	26	
	Sep		589	22	27	
	Oct	4	579	22	26	
	Nov		275	21	13	
	Dec		425	23	18	
2016	Jan	1	606	21	29	4.58
	Feb		573	20	29	
	Mar		414	23	18	
	Apr	2	261	21	12	
	May		213	22	10	
	Jun		-	22	-	
	Jul	3	194	21	9	
	Aug		831	23	36	
	Sep		1,600	22	73	
	Oct	4	1,526	21	73	
	Nov		1,599	22	73	
	Dec		1,344	22	61	
2017	Jan	1	1,261	22	57	3.70
	Feb		1,415	20	71	
	Mar		1,185	23	52	
	Apr	2	863	20	43	
	May		459	23	20	
	Jun		304	22	14	
	Jul	3	424	21	20	
	Aug		398	23	17	
	Sep		280	21	13	
	Oct	4	296	22	13	
	Nov		303	22	14	
	Dec		218	21	10	
2018	Jan	1	168	23	7	2.89
	Feb		146	20	7	
	Mar		161	22	7	
	Apr	2	298	21	14	
	May		301	23	13	
	Jun		239	21	11	
	Jul	3	675	22	31	
	Aug		703	23	31	
	Sep		673	20	34	
	Oct	4	842	23	37	
	Nov		691	22	31	
	Dec		889	21	42	
2019	Jan	1	880	23	38	1.02
	Feb		634	20	32	
	Mar		431	21	21	
	Apr	2	77	22	4	
	May		10	23	0	
	Jun		7	20	0	

Fine Particulate Matter (PM _{2.5})		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2014	2015
Demo American Airlines Maintenance Shop		5 Dec
Relocate Electrical Substation	4 Sep	6 Feb
Demo American Airlines Leasehold Parking		1 Dec
Demo US Coast Guard Facility		8 Jun
Relocate US Airways Maintenance Facility	21 Nov	8 Oct
Relocate Water Deluge Tank and Pump Station	17 Aug	
Relocate Electrical Vault #2	9 Aug	
Removal RON Aircraft Parking Spaces		7 Sep
Relocate FAA NAVAIDS	16 Aug	0 Jan
Reconfigure New Landside/Service Roads	30 Nov	7 Jan
Relocate Utility Lines	17 Dec	10 May
Construct Taxilane C12		
Construct Taxiway C14	17 Dec	5 Jan
Construct Ramp Tower		
Construct Tunnel		
Construct MSC Utilities		3 Aug
Construct MSC Apron (North)		
Construct MSC Concourse (North)		

Fine Particulate Matter (PM _{2.5})		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2016	2017
Demo American Airlines Maintenance Shop	9 Feb	
Relocate Electrical Substation		
Demo American Airlines Leasehold Parking	8 Jan	
Demo US Coast Guard Facility		
Relocate US Airways Maintenance Facility		
Relocate Water Deluge Tank and Pump Station		
Relocate Electrical Vault #2		
Removal RON Aircraft Parking Spaces		
Relocate FAA NAVAIDS		
Reconfigure New Landside/Service Roads		
Relocate Utility Lines	10 Jan	
Construct Taxilane C12		
Construct Taxiway C14		
Construct Ramp Tower		
Construct Tunnel	30 Oct	35 Jan
Construct MSC Utilities	3 Feb	
Construct MSC Apron (North)		
Construct MSC Concourse (North)	43 Sep	36 Feb

Fine Particulate Matter (PM _{2.5})		
LAX MSC North Project Construction Component	Max Emissions (lb/day)	
	2018	2019
Demo American Airlines Maintenance Shop		
Relocate Electrical Substation		
Demo American Airlines Leasehold Parking		
Demo US Coast Guard Facility		
Relocate US Airways Maintenance Facility		
Relocate Water Deluge Tank and Pump Station		
Relocate Electrical Vault #2		
Removal RON Aircraft Parking Spaces		
Relocate FAA NAVAIDS		
Reconfigure New Landside/Service Roads		
Relocate Utility Lines		
Construct Taxilane C12	9 Oct	
Construct Taxiway C14	12 Dec	10 Jan
Construct Ramp Tower	5 Apr	
Construct Tunnel		
Construct MSC Utilities		
Construct MSC Apron (North)	20 Dec	20 Feb
Construct MSC Concourse (North)	10 Jul	8 Jan

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Criteria Pollutants – On-Site Equipment Emission Factors

LAX MSC North Project Draft EIR
Criteria Pollutants - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	OFFROAD2007 Category	OFFROAD2007 Emission Factor (lb/hp-hr) - CO ¹						Fully Loaded Emission Factor (lb/hr) - CO ²					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tractors/Loaders/Backhoes	0.0072	0.0072	0.0072	0.0072	0.0072	0.0072	0.2756	0.2754	0.2753	0.2751	0.2750	0.2749
Concrete Batch Plant	Cement and Mortar Mixers	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Compactor	Rollers	0.0072	0.0071	0.0071	0.0071	0.0071	0.0071	0.3247	0.3239	0.3231	0.3225	0.3220	0.3215
Air Compressor	Air Compressors	0.0086	0.0085	0.0084	0.0083	0.0083	0.0082	0.2376	0.2352	0.2328	0.2307	0.2289	0.2272
Sheep's Foot Compactor	Rollers	0.0072	0.0071	0.0071	0.0071	0.0071	0.0071	0.3247	0.3239	0.3231	0.3225	0.3220	0.3215
Concrete Drill	Concrete/Industrial Saws	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Other Construction Equipment	0.0025	0.0024	0.0024	0.0024	0.0023	0.0023	0.3727	0.3640	0.3571	0.3518	0.3479	0.3451
Crane	Cranes	0.0031	0.0030	0.0029	0.0029	0.0028	0.0028	0.1511	0.1455	0.1413	0.1380	0.1352	0.1329
Crusher	Crushing/Proc. Equipment	0.0072	0.0072	0.0071	0.0071	0.0071	0.0071	0.4175	0.4164	0.4156	0.4150	0.4147	0.4146
Bulldozer D10	Rubber Tired Dozers	0.0063	0.0059	0.0055	0.0052	0.0049	0.0046	1.1771	1.1022	1.0337	0.9715	0.9156	0.8658
Bulldozer D9	Rubber Tired Dozers	0.0063	0.0059	0.0055	0.0052	0.0049	0.0046	0.8397	0.7861	0.7370	0.6924	0.6524	0.6167
Dump Truck 13 CY	Off-Highway Trucks	0.0028	0.0027	0.0027	0.0026	0.0026	0.0025	0.2335	0.2265	0.2206	0.2161	0.2124	0.2094
Excavator	Excavators	0.0027	0.0027	0.0027	0.0026	0.0026	0.0026	0.1941	0.1914	0.1891	0.1871	0.1854	0.1840
Fork Lift	Forklifts	0.0087	0.0086	0.0086	0.0085	0.0085	0.0085	0.1160	0.1152	0.1147	0.1143	0.1139	0.1134
Generator	Generator Sets	0.0026	0.0025	0.0024	0.0023	0.0023	0.0022	0.6658	0.6402	0.6182	0.6014	0.5895	0.5812
Motor Grader 14H	Graders	0.0030	0.0029	0.0029	0.0028	0.0028	0.0027	0.2227	0.2157	0.2098	0.2051	0.2014	0.1986
Scissor Lift	Aerial Lifts	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Rubber Tired Loaders	0.0030	0.0029	0.0028	0.0028	0.0027	0.0027	0.1982	0.1921	0.1873	0.1836	0.1806	0.1782
Loader 988	Rubber Tired Loaders	0.0032	0.0031	0.0030	0.0029	0.0028	0.0027	0.3880	0.3709	0.3566	0.3450	0.3351	0.3268
Concrete Paver - Bidwell	Pavers	0.0046	0.0044	0.0041	0.0039	0.0037	0.0035	0.7396	0.6939	0.6540	0.6192	0.5889	0.5625
Asphalt Paver, 7 CY Hopper	Pavers	0.0038	0.0036	0.0035	0.0033	0.0032	0.0031	0.2598	0.2492	0.2396	0.2309	0.2231	0.2163
Concrete Saw	Concrete/Industrial Saws	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052	0.0357	0.0357	0.0357	0.0357	0.0357	0.0357
Scraper 631	Scrapers	0.0044	0.0042	0.0039	0.0037	0.0036	0.0034	0.8007	0.7536	0.7127	0.6771	0.6462	0.6194
Water Stand	Other Construction Equipment	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	Welders	0.0128	0.0124	0.0120	0.0116	0.0113	0.0110	0.2038	0.1971	0.1908	0.1851	0.1797	0.1746
Welder/Generator Truck Mount	Welders	0.0083	0.0083	0.0082	0.0081	0.0081	0.0080	0.1532	0.1517	0.1502	0.1489	0.1478	0.1467

On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - CO ³						Fully Loaded Emission Factor (lb/hr) - CO ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	83.6270	84.6838	85.6949	86.6712	87.6193	88.5399	0.0171	0.0153	0.0138	0.0124	0.0111	0.0102
Haul Truck	T7 single construction	83.6270	84.6838	85.6949	86.6712	87.6193	88.5399	0.1844	0.1867	0.1889	0.1911	0.1932	0.1952
Water Truck	T7 single construction	83.6270	84.6838	85.6949	86.6712	87.6193	88.5399	0.1844	0.1867	0.1889	0.1911	0.1932	0.1952
Pickup Truck	LHD2 (light-heavy-duty truck)	275.8242	238.8767	206.0211	175.4552	146.4415	125.4851	0.1536	0.1556	0.1574	0.1592	0.1610	0.1627
Transit Mixer Truck 10 CY	T7 single construction	83.6270	84.6838	85.6949	86.6712	87.6193	88.5399	0.6081	0.5266	0.4542	0.3868	0.3228	0.2766
End Dump Truck	T7 single construction	83.6270	84.6838	85.6949	86.6712	87.6193	88.5399	0.1844	0.1867	0.1889	0.1911	0.1932	0.1952

Notes:

CO = carbon monoxide; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ Emission factors as derived from OFFROAD2007.

² Fully loaded emission factors derived by multiplying OFFROAD2007 emission factor by equipment horsepower, load factor, and efficiency factor.

³ EMFAC2011 emission factors for CO include running and idling emissions (and starting emissions for gasoline vehicles); factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 mph.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

Source: Ricondo & Associates, 2013; CARB OFFROAD2007; CARB EMFAC2011

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Criteria Pollutants - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	USEPA Tiered Emissions Standards		Emission Factor (lb/hp-hr) - ROG ¹						Fully Loaded Emission Factor (lb/hr) - ROG ²					
	2014	2015-on	2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0126	0.0118	0.0118	0.0118	0.0118	0.0118
Concrete Batch Plant	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Compactor	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0150	0.0140	0.0140	0.0140	0.0140	0.0140
Air Compressor	Tier 3	Tier 4	0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0107	0.0085	0.0085	0.0085	0.0085	0.0085
Sheep's Foot Compactor	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0150	0.0140	0.0140	0.0140	0.0140	0.0140
Concrete Drill	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0492	0.0459	0.0459	0.0459	0.0459	0.0459
Crane	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0159	0.0148	0.0148	0.0148	0.0148	0.0148
Crusher	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0192	0.0179	0.0179	0.0179	0.0179	0.0179
Bulldozer D10	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0621	0.0580	0.0580	0.0580	0.0580	0.0580
Bulldozer D9	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0441	0.0412	0.0412	0.0412	0.0412	0.0412
Dump Truck 13 CY	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0274	0.0255	0.0255	0.0255	0.0255	0.0255
Excavator	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0234	0.0218	0.0218	0.0218	0.0218	0.0218
Fork Lift	Tier 3	Tier 4	0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0052	0.0041	0.0041	0.0041	0.0041	0.0041
Generator	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0857	0.0800	0.0800	0.0800	0.0800	0.0800
Motor Grader 14H	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0242	0.0226	0.0226	0.0226	0.0226	0.0226
Scissor Lift	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0219	0.0205	0.0205	0.0205	0.0205	0.0205
Loader 988	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0399	0.0372	0.0372	0.0372	0.0372	0.0372
Concrete Paver - Bidwell	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0527	0.0491	0.0491	0.0491	0.0491	0.0491
Asphalt Paver, 7 CY Hopper	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0229	0.0214	0.0214	0.0214	0.0214	0.0214
Concrete Saw	OFFROAD2011 emission factor		0.0024	0.0024	0.0024	0.0023	0.0022	0.0021	0.0164	0.0165	0.0164	0.0160	0.0151	0.0149
Scraper 631	Tier 3	Tier 4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0598	0.0558	0.0558	0.0558	0.0558	0.0558
Water Stand	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	OFFROAD2011 emission factor		0.0024	0.0024	0.0024	0.0023	0.0022	0.0021	0.0377	0.0380	0.0377	0.0369	0.0348	0.0342
Welder/Generator Truck Mount	Tier 3	Tier 4	0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0071	0.0057	0.0057	0.0057	0.0057	0.0057

On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - ROG ³						Fully Loaded Emission Factor (lb/hr) - ROG ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	16.5096	16.8542	17.1838	17.5021	17.8112	18.1113	0.0364	0.0372	0.0379	0.0386	0.0393	0.0399
Haul Truck	T7 single construction	16.5096	16.8542	17.1838	17.5021	17.8112	18.1113	0.0364	0.0372	0.0379	0.0386	0.0393	0.0399
Water Truck	T7 single construction	16.5096	16.8542	17.1838	17.5021	17.8112	18.1113	0.0303	0.0310	0.0316	0.0322	0.0327	0.0333
Pickup Truck	LHD2 (light-heavy-duty truck)	26.4002	23.4086	20.7258	18.2360	15.8545	13.9950	0.0582	0.0516	0.0457	0.0402	0.0350	0.0309
Transit Mixer Truck 10 CY	T7 single construction	16.5096	16.8542	17.1838	17.5021	17.8112	18.1113	0.0364	0.0372	0.0379	0.0386	0.0393	0.0399
End Dump Truck	T7 single construction	16.5096	16.8542	17.1838	17.5021	17.8112	18.1113	0.0364	0.0372	0.0379	0.0386	0.0393	0.0399

Notes:

USEPA = U.S. Environmental Protection Agency; ROG = reactive organic gases; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ For diesel equipment greater than 50 horsepower, Tier 3 emissions standards assumed for 2014 and Tier 4 emissions standards are assumed for 2015-on. OFFROAD2011 emission factors assumed for diesel equipment less than 50 horsepower.

² Fully loaded emission factors derived by multiplying the emission factor by equipment horsepower, load factor, and efficiency factor.

³ EMFAC2011 emission factors for ROG include running and idling emissions (and starting, diurnal, hot soak, running, and resting emissions for gasoline vehicles; factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 miles per hour.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

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Criteria Pollutants - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	USEPA Tiered Emissions Standards		Emission Factor (lb/hp-hr) - NO _x ¹						Fully Loaded Emission Factor (lb/hr) - NO _x ²					
	2014	2015-on	2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.2393	0.0252	0.0252	0.0252	0.0252	0.0252
Concrete Batch Plant	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Compactor	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.2849	0.0300	0.0300	0.0300	0.0300	0.0300
Air Compressor	Tier 3	Tier 4	0.0073	0.0007	0.0007	0.0007	0.0007	0.0007	0.2030	0.0183	0.0183	0.0183	0.0183	0.0183
Sheep's Foot Compactor	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.2849	0.0300	0.0300	0.0300	0.0300	0.0300
Concrete Drill	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.9353	0.0984	0.0984	0.0984	0.0984	0.0984
Crane	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.3017	0.0318	0.0318	0.0318	0.0318	0.0318
Crusher	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.3654	0.0385	0.0385	0.0385	0.0385	0.0385
Bulldozer D10	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	1.1798	0.1242	0.1242	0.1242	0.1242	0.1242
Bulldozer D9	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.8383	0.0882	0.0882	0.0882	0.0882	0.0882
Dump Truck 13 CY	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.5199	0.0547	0.0547	0.0547	0.0547	0.0547
Excavator	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.4439	0.0467	0.0467	0.0467	0.0467	0.0467
Fork Lift	Tier 3	Tier 4	0.0073	0.0007	0.0007	0.0007	0.0007	0.0007	0.0982	0.0089	0.0089	0.0089	0.0089	0.0089
Generator	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	1.6291	0.1715	0.1715	0.1715	0.1715	0.1715
Motor Grader 14H	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.4601	0.0484	0.0484	0.0484	0.0484	0.0484
Scissor Lift	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.4168	0.0439	0.0439	0.0439	0.0439	0.0439
Loader 988	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.7578	0.0798	0.0798	0.0798	0.0798	0.0798
Concrete Paver - Bidwell	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	1.0005	0.1053	0.1053	0.1053	0.1053	0.1053
Asphalt Paver, 7 CY Hopper	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	0.4350	0.0458	0.0458	0.0458	0.0458	0.0458
Concrete Saw	OFFROAD2011 emission factor		0.0123	0.0123	0.0122	0.0120	0.0117	0.0116	0.0849	0.0850	0.0843	0.0833	0.0813	0.0802
Scraper 631	Tier 3	Tier 4	0.0063	0.0007	0.0007	0.0007	0.0007	0.0007	1.1366	0.1196	0.1196	0.1196	0.1196	0.1196
Water Stand	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	OFFROAD2011 emission factor		0.0123	0.0123	0.0122	0.0120	0.0117	0.0116	0.1954	0.1954	0.1940	0.1916	0.1870	0.1844
Welder/Generator Truck Mount	Tier 3	Tier 4	0.0073	0.0007	0.0007	0.0007	0.0007	0.0007	0.1345	0.0121	0.0121	0.0121	0.0121	0.0121

On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - NO _x ³						Fully Loaded Emission Factor (lb/hr) - NO _x ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	223.6836	226.0697	228.3638	230.5791	232.7304	234.8186	0.4931	0.4984	0.5035	0.5083	0.5131	0.5177
Haul Truck	T7 single construction	223.6836	226.0697	228.3638	230.5791	232.7304	234.8186	0.4931	0.4984	0.5035	0.5083	0.5131	0.5177
Water Truck	T7 single construction	223.6836	226.0697	228.3638	230.5791	232.7304	234.8186	0.4109	0.4153	0.4195	0.4236	0.4276	0.4314
Pickup Truck	LHD2 (light-heavy-duty truck)	30.5605	28.6587	26.8509	25.0724	23.4160	21.8996	0.0674	0.0632	0.0592	0.0553	0.0516	0.0483
Transit Mixer Truck 10 CY	T7 single construction	223.6836	226.0697	228.3638	230.5791	232.7304	234.8186	0.4931	0.4984	0.5035	0.5083	0.5131	0.5177
End Dump Truck	T7 single construction	223.6836	226.0697	228.3638	230.5791	232.7304	234.8186	0.4931	0.4984	0.5035	0.5083	0.5131	0.5177

Notes:

USEPA = U.S. Environmental Protection Agency; NO_x = nitrogen oxides; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ For diesel equipment greater than 50 horsepower, Tier 3 emissions standards assumed for 2014 and Tier 4 (final) emissions standards are assumed for 2015-on. OFFROAD2011 emission factors assumed for diesel equipment less than 50 horsepower.

² Fully loaded emission factors derived by multiplying the emission factor by equipment horsepower, load factor, and efficiency factor.

³ EMFAC2011 emission factors for NO_x include running and idling emissions (and starting emissions for gasoline vehicles); factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 mph.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

Source: Ricondo & Associates, 2013; CARB OFFROAD2011; tiered emission standards from SCAQMD: www.aqmd.gov/ceqa/handbook/mitigation/offroad/TableII.xls

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Criteria Pollutants - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	OFFROAD2007 Category	OFFROAD2007 Emission Factor (lb/hp-hr) - SO _x ¹						Fully Loaded Emission Factor (lb/hr) - SO _x ²					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tractors/Loaders/Backhoes	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Concrete Batch Plant	Cement and Mortar Mixers	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Compactor	Rollers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Air Compressor	Air Compressors	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
Sheep's Foot Compactor	Rollers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Concrete Drill	Concrete/Industrial Saws	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Other Construction Equipment	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018
Crane	Cranes	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Crusher	Crushing/Proc. Equipment	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0008	0.0008	0.0008	0.0008	0.0008	0.0008
Bulldozer D10	Rubber Tired Dozers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0024	0.0024	0.0024	0.0024	0.0024	0.0024
Bulldozer D9	Rubber Tired Dozers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016
Dump Truck 13 CY	Off-Highway Trucks	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Excavator	Excavators	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Fork Lift	Forklifts	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Generator	Generator Sets	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033
Motor Grader 14H	Graders	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Scissor Lift	Aerial Lifts	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Rubber Tired Loaders	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Loader 988	Rubber Tired Loaders	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Concrete Paver - Bidwell	Pavers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0020	0.0020	0.0020	0.0020	0.0020	0.0020
Asphalt Paver, 7 CY Hopper	Pavers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Concrete Saw	Concrete/Industrial Saws	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Scraper 631	Scrapers	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022
Water Stand	Other Construction Equipment	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	Welders	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
Welder/Generator Truck Mount	Welders	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003

On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - SO _x ³						Fully Loaded Emission Factor (lb/hr) - SO _x ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	0.4058	0.4062	0.4062	0.4062	0.4062	0.4052	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Haul Truck	T7 single construction	0.4058	0.4062	0.4062	0.4062	0.4062	0.4052	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Water Truck	T7 single construction	0.4058	0.4062	0.4062	0.4062	0.4062	0.4052	0.0007	0.0007	0.0007	0.0007	0.0007	0.0007
Pickup Truck	LHD2 (light-heavy-duty truck)	0.2507	0.2513	0.2510	0.2508	0.2505	0.2487	0.0006	0.0006	0.0006	0.0006	0.0006	0.0005
Transit Mixer Truck 10 CY	T7 single construction	0.4058	0.4062	0.4062	0.4062	0.4062	0.4052	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
End Dump Truck	T7 single construction	0.4058	0.4062	0.4062	0.4062	0.4062	0.4052	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009

Notes:

SO_x = sulfur oxides; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ Emission factors as derived from OFFROAD2007.

² Fully loaded emission factors derived by multiplying OFFROAD2007 emission factor by equipment horsepower, load factor, and efficiency factor.

³ EMFAC2011 emission factors for SO_x include running and idling emissions (and starting emissions for gasoline vehicles); factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 mph.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

Source: Ricondo & Associates, 2013; CARB OFFROAD2007; CARB EMFAC2011

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Criteria Pollutants - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	USEPA Tiered Emissions Standards		Emission Factor (lb/hp-hr) - PM ₁₀ ¹						Fully Loaded Emission Factor (lb/hr) - PM ₁₀ ²					
	2014	2015-on	2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tier 3	Tier 4	0.00049	0.00003	0.00003	0.00003	0.00003	0.00003	0.0115	0.0081	0.0081	0.0081	0.0081	0.0081
Concrete Batch Plant	-----	-----	-----	-----	-----	-----	-----	-----	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Compactor	Tier 3	Tier 4	0.00049	0.00003	0.00003	0.00003	0.00003	0.00003	0.3137	0.2951	0.2951	0.2951	0.2951	0.2951
Air Compressor	Tier 3	Tier 4	0.00066	0.00003	0.00003	0.00003	0.00003	0.00003	0.0183	0.0009	0.0009	0.0009	0.0009	0.0009
Sheep's Foot Compactor	Tier 3	Tier 4	0.00049	0.00003	0.00003	0.00003	0.00003	0.00003	0.3156	0.2951	0.2951	0.2951	0.2951	0.2951
Concrete Drill	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0492	0.0049	0.0049	0.0049	0.0049	0.0049
Crane	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0159	0.0016	0.0016	0.0016	0.0016	0.0016
Crusher	Tier 3	Tier 4	0.00049	0.00003	0.00003	0.00003	0.00003	0.00003	0.1612	0.1349	0.1349	0.1349	0.1349	0.1349
Bulldozer D10	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.3557	0.2998	0.2998	0.2998	0.2998	0.2998
Bulldozer D9	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.3377	0.2980	0.2980	0.2980	0.2980	0.2980
Dump Truck 13 CY	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0916	0.0670	0.0670	0.0670	0.0670	0.0670
Excavator	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0123	0.0087	0.0087	0.0087	0.0087	0.0087
Fork Lift	Tier 3	Tier 4	0.00066	0.00003	0.00003	0.00003	0.00003	0.00003	0.0089	0.0004	0.0004	0.0004	0.0004	0.0004
Generator	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0857	0.0086	0.0086	0.0086	0.0086	0.0086
Motor Grader 14H	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0242	0.0024	0.0024	0.0024	0.0024	0.0024
Scissor Lift	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0176	0.0142	0.0142	0.0142	0.0142	0.0142
Loader 988	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.4460	0.4399	0.4399	0.4399	0.4399	0.4399
Concrete Paver - Bidwell	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0308	0.0053	0.0053	0.0053	0.0053	0.0053
Asphalt Paver, 7 CY Hopper	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.0134	0.0023	0.0023	0.0023	0.0023	0.0023
Concrete Saw	OFFROAD2011 emission factor		0.00111	0.00111	0.00110	0.00107	0.00101	0.00098	0.0077	0.0077	0.0076	0.0074	0.0070	0.0068
Scraper 631	Tier 3	Tier 4	0.00033	0.00003	0.00003	0.00003	0.00003	0.00003	0.5999	0.5511	0.5511	0.5511	0.5511	0.5511
Water Stand	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	OFFROAD2011 emission factor		0.00111	0.00111	0.00110	0.00107	0.00101	0.00098	0.0176	0.0177	0.0175	0.0170	0.0161	0.0157
Welder/Generator Truck Mount	Tier 3	Tier 4	0.00066	0.00003	0.00003	0.00003	0.00003	0.00003	0.0121	0.0006	0.0006	0.0006	0.0006	0.0006

On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - PM ₁₀ ³						Fully Loaded Emission Factor (lb/hr) - PM ₁₀ ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	3.0908	3.1307	3.1689	3.2058	3.2416	3.2764	0.0653	0.0653	0.0653	0.0653	0.0653	0.0654
Haul Truck	T7 single construction	3.0908	3.1307	3.1689	3.2058	3.2416	3.2764	0.0653	0.0653	0.0653	0.0653	0.0653	0.0654
Water Truck	T7 single construction	3.0908	3.1307	3.1689	3.2058	3.2416	3.2764	0.0651	0.0651	0.0651	0.0652	0.0652	0.0652
Pickup Truck	LHD2 (light-heavy-duty truck)	1.1602	1.1284	1.1005	1.0753	1.0505	1.0312	0.0668	0.0668	0.0667	0.0666	0.0666	0.0665
Transit Mixer Truck 10 CY	T7 single construction	3.0908	3.1307	3.1689	3.2058	3.2416	3.2764	0.0653	0.0653	0.0653	0.0653	0.0653	0.0654
End Dump Truck	T7 single construction	3.0908	3.1307	3.1689	3.2058	3.2416	3.2764	0.0653	0.0653	0.0653	0.0653	0.0653	0.0654

Notes:

USEPA = U.S. Environmental Protection Agency; PM₁₀ = respirable particulate matter; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ For diesel equipment greater than 50 horsepower, Tier 3 emissions standards assumed for 2014 and Tier 4 emissions standards are assumed for 2015-on. OFFROAD2011 emission factors assumed for diesel equipment less than 50 horsepower.

² Fully loaded emission factors derived by multiplying the emission factor by equipment horsepower, load factor, and efficiency factor, and accounts for fugitive dust and applicable reductions due to emissions control devices. See fugitive dust tables for fugitive dust factors. See table above for assumed emission reductions due to emissions control devices.

³ EMFAC2011 emission factors for PM₁₀ include running, idling, break wear, and tire wear emissions (and starting emissions for gasoline vehicles); factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 miles per hour.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

Source: Ricondo & Associates, 2013; CARB OFFROAD2011; tiered emission standards from SCAQMD: www.aqmd.gov/ceqa/handbook/mitigation/offroad/TableII.xls

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Criteria Pollutants - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	USEPA Tiered Emissions Standards		Emission Factor (lb/hp-hr) - PM _{2.5} ¹						Fully Loaded Emission Factor (lb/hr) - PM _{2.5} ²					
	2014	2015-on	2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tier 3	Tier 4	0.00045	0.00003	0.00003	0.00003	0.00003	0.00003	0.0053	0.0022	0.0022	0.0022	0.0022	0.0022
Concrete Batch Plant	-----	-----	-----	-----	-----	-----	-----	-----	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Compactor	Tier 3	Tier 4	0.00045	0.00003	0.00003	0.00003	0.00003	0.00003	0.1799	0.1628	0.1628	0.1628	0.1628	0.1628
Air Compressor	Tier 3	Tier 4	0.00061	0.00003	0.00003	0.00003	0.00003	0.00003	0.0169	0.0008	0.0008	0.0008	0.0008	0.0008
Sheep's Foot Compactor	Tier 3	Tier 4	0.00045	0.00003	0.00003	0.00003	0.00003	0.00003	0.1816	0.1628	0.1628	0.1628	0.1628	0.1628
Concrete Drill	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0453	0.0045	0.0045	0.0045	0.0045	0.0045
Crane	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0146	0.0015	0.0015	0.0015	0.0015	0.0015
Crusher	Tier 3	Tier 4	0.00045	0.00003	0.00003	0.00003	0.00003	0.00003	0.0420	0.0178	0.0178	0.0178	0.0178	0.0178
Bulldozer D10	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.2185	0.1671	0.1671	0.1671	0.1671	0.1671
Bulldozer D9	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.2020	0.1654	0.1654	0.1654	0.1654	0.1654
Dump Truck 13 CY	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0298	0.0071	0.0071	0.0071	0.0071	0.0071
Excavator	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0064	0.0031	0.0031	0.0031	0.0031	0.0031
Fork Lift	Tier 3	Tier 4	0.00061	0.00003	0.00003	0.00003	0.00003	0.00003	0.0082	0.0004	0.0004	0.0004	0.0004	0.0004
Generator	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0789	0.0079	0.0079	0.0079	0.0079	0.0079
Motor Grader 14H	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0223	0.0022	0.0022	0.0022	0.0022	0.0022
Scissor Lift	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0069	0.0038	0.0038	0.0038	0.0038	0.0038
Loader 988	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0535	0.0479	0.0479	0.0479	0.0479	0.0479
Concrete Paver - Bidwell	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0283	0.0048	0.0048	0.0048	0.0048	0.0048
Asphalt Paver, 7 CY Hopper	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.0123	0.0021	0.0021	0.0021	0.0021	0.0021
Concrete Saw	OFFROAD2011 emission factor		0.00237	0.00239	0.00237	0.00232	0.00218	0.00215	0.0164	0.0165	0.0164	0.0160	0.0151	0.0149
Scraper 631	Tier 3	Tier 4	0.00030	0.00003	0.00003	0.00003	0.00003	0.00003	0.1330	0.0880	0.0880	0.0880	0.0880	0.0880
Water Stand	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	OFFROAD2011 emission factor		0.00237	0.00239	0.00237	0.00232	0.00218	0.00215	0.0377	0.0380	0.0377	0.0369	0.0348	0.0342
Welder/Generator Truck Mount	Tier 3	Tier 4	0.00061	0.00003	0.00003	0.00003	0.00003	0.00003	0.0112	0.0006	0.0006	0.0006	0.0006	0.0006

On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - PM _{2.5} ³						Fully Loaded Emission Factor (lb/hr) - PM _{2.5} ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	2.1176	2.1645	2.2133	2.2604	2.3061	2.3607	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Haul Truck	T7 single construction	2.1176	2.1645	2.2133	2.2604	2.3061	2.3607	0.0053	0.0053	0.0053	0.0053	0.0054	0.0054
Water Truck	T7 single construction	2.1176	2.1645	2.2133	2.2604	2.3061	2.3607	0.0053	0.0053	0.0053	0.0053	0.0054	0.0054
Pickup Truck	LHD2 (light-heavy-duty truck)	0.5971	0.5686	0.5435	0.5209	0.4988	0.4811	0.0052	0.0052	0.0052	0.0052	0.0052	0.0052
Transit Mixer Truck 10 CY	T7 single construction	2.1176	2.1645	2.2133	2.2604	2.3061	2.3607	0.0059	0.0058	0.0058	0.0057	0.0057	0.0057
End Dump Truck	T7 single construction	2.1176	2.1645	2.2133	2.2604	2.3061	2.3607	0.0053	0.0053	0.0053	0.0053	0.0054	0.0054

Notes:

USEPA = U.S. Environmental Protection Agency; PM_{2.5} = fine particulate matter; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ PM_{2.5} emission factors developed by applying a size factor of 0.92 to appropriate PM₁₀ emission factors, based on information obtained from CARB's CEIDARS database.

² Fully loaded emission factors derived by multiplying the emission factor by equipment horsepower, load factor, and efficiency factor, and accounts for fugitive dust and applicable reductions due to emissions control devices. See fugitive dust tables for fugitive dust factors. See table above for assumed emission reductions due to emissions control devices.

³ EMFAC2011 emission factors for PM_{2.5} include running, idling, break wear, and tire wear emissions (and starting emissions for gasoline vehicles); factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 miles per hour.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

Source: Ricondo & Associates, 2013; CARB OFFROAD2011; tiered emission standards from SCAQMD: www.aqmd.gov/ceqa/handbook/mitigation/offroad/TableII.xls

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Criteria Pollutants – On-Site Equipment Emissions
 - Off-Road On-Site Equipment Emissions
 - On-Road On-Site Equipment Emissions

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Criteria Pollutants - Off-Road On-Site Equipment Emissions

Year	Month	Quarter	Emissions (lb/month)						Workdays ¹	Emissions (lb/day)					
			CO	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}		CO	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}
2014	Jul	3	963	94	1,677	3	329	146	23	42	4	73	0	14	6
	Aug		9,674	953	17,229	35	3,029	1,408	21	461	45	820	2	144	67
	Sep		11,606	1,147	20,694	42	3,175	1,599	22	528	52	941	2	144	73
	Oct	4	13,673	1,277	23,171	47	4,224	1,992	23	594	56	1,007	2	184	87
	Nov		12,534	1,107	20,361	41	4,466	1,895	20	627	55	1,018	2	223	95
	Dec		11,849	1,066	19,708	40	4,079	1,709	23	515	46	857	2	177	74
2015	Jan	1	7,831	716	1,606	29	1,924	497	22	356	33	73	1	87	23
	Feb		6,740	612	1,337	25	1,807	437	20	337	31	67	1	90	22
	Mar		5,543	520	1,121	22	1,281	280	22	252	24	51	1	58	13
	Apr	2	5,408	488	1,046	20	1,466	338	22	246	22	48	1	67	15
	May		5,116	460	987	19	1,296	281	21	244	22	47	1	62	13
	Jun		5,513	495	1,060	21	1,547	358	22	251	22	48	1	70	16
	Jul	3	5,112	479	1,027	20	1,110	228	23	222	21	45	1	48	10
	Aug		7,902	729	1,561	30	1,977	445	21	376	35	74	1	94	21
	Sep		8,282	752	1,611	31	2,225	486	22	376	34	73	1	101	22
	Oct	4	7,494	686	1,470	28	2,059	489	22	341	31	67	1	94	22
	Nov		4,670	448	960	19	968	203	21	222	21	46	1	46	10
	Dec		6,037	565	1,211	23	1,505	341	23	262	25	53	1	65	15
2016	Jan	1	6,989	654	1,401	27	2,163	523	21	333	31	67	1	103	25
	Feb		6,612	619	1,325	26	2,029	490	20	331	31	66	1	101	24
	Mar		5,779	560	1,200	23	1,475	333	23	251	24	52	1	64	14
	Apr	2	4,464	443	950	18	938	195	21	213	21	45	1	45	9
	May		4,066	408	874	17	685	149	22	185	19	40	1	31	7
	Jun		-	-	-	-	-	-	22	-	-	-	-	-	-
	Jul	3	6,691	758	1,625	31	170	92	21	319	36	77	1	8	4
	Aug		10,559	1,124	2,409	46	1,793	444	23	459	49	105	2	78	19
	Sep		14,848	1,473	3,157	61	3,983	1,023	22	675	67	143	3	181	47
	Oct	4	14,173	1,406	3,013	58	3,802	977	21	675	67	143	3	181	47
	Nov		14,848	1,473	3,157	61	3,983	1,023	22	675	67	143	3	181	47
	Dec		13,337	1,346	2,885	55	3,261	833	22	606	61	131	3	148	38
2017	Jan	1	12,940	1,395	3,187	55	2,986	820	22	588	63	145	3	136	37
	Feb		13,649	1,432	3,249	57	3,652	992	20	682	72	162	3	183	50
	Mar		13,803	1,477	3,371	58	3,032	895	23	600	64	147	3	132	39
	Apr	2	11,282	1,219	2,793	48	2,192	685	20	564	61	140	2	110	34
	May		9,241	1,077	2,514	42	665	298	23	402	47	109	2	29	13
	Jun		7,881	950	2,251	37	146	160	22	358	43	102	2	7	7
	Jul	3	8,205	1,034	2,784	36	195	272	21	391	49	133	2	9	13
	Aug		8,591	1,068	2,783	38	192	255	23	374	46	121	2	8	11
	Sep		5,602	705	1,890	25	131	183	21	267	34	90	1	6	9
	Oct	4	5,869	739	1,980	26	137	192	22	267	34	90	1	6	9
	Nov		5,869	739	1,980	26	137	192	22	267	34	90	1	6	9
	Dec		5,228	635	1,541	24	101	118	21	249	30	73	1	5	6
2018	Jan	1	5,264	626	1,341	26	80	64	23	229	27	58	1	3	3
	Feb		4,577	544	1,166	22	69	55	20	229	27	58	1	3	3
	Mar		5,035	599	1,283	25	76	61	22	229	27	58	1	3	3
	Apr	2	6,227	741	1,689	29	252	141	21	297	35	80	1	12	7
	May		6,439	768	1,690	31	103	90	23	280	33	73	1	4	4
	Jun		5,042	600	1,285	25	76	61	21	240	29	61	1	4	3
	Jul	3	7,789	862	1,847	36	964	320	22	354	39	84	2	44	15
	Aug		8,143	901	1,931	37	1,007	335	23	354	39	84	2	44	15
	Sep		7,652	830	1,809	34	1,015	327	20	383	42	90	2	51	16
	Oct	4	9,052	979	2,134	40	1,217	412	23	394	43	93	2	53	18
	Nov		7,800	858	1,866	35	1,159	327	22	355	39	85	2	53	15
	Dec		7,674	828	1,835	34	1,211	426	21	365	39	87	2	58	20
2019	Jan	1	8,260	907	2,016	37	1,238	409	23	359	39	88	2	54	18
	Feb		6,419	719	1,600	29	895	260	20	321	36	80	1	45	13
	Mar		5,677	661	1,458	27	630	128	21	270	31	69	1	30	6
	Apr	2	205	20	51	1	309	15	22	9	1	2	0	14	1
	May		126	11	47	0	4	8	23	5	0	2	0	0	0
	Jun		95	8	35	0	3	6	20	5	0	2	0	0	0

Notes:

lb/month = pounds per month; lb/day = pounds per day.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013, based on sources and methodologies depicted in previous tables in this section.

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Criteria Pollutants - On-Road On-Site Equipment Emissions

Year	Month	Quarter	Emissions (lb/month)						Workdays ¹	Emissions (lb/day)					
			CO	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}		CO	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}
2014	Jul	3	939	103	442	1	143	12	23	41	4	19	0	6	1
	Aug		6,970	719	2,091	8	916	79	21	332	34	100	0	44	4
	Sep		8,726	889	2,312	10	1,114	97	22	397	40	105	0	51	4
	Oct	4	8,378	858	2,334	10	1,082	94	23	364	37	101	0	47	4
	Nov		5,699	594	1,854	7	767	66	20	285	30	93	0	38	3
	Dec		5,845	614	2,013	7	789	68	23	254	27	88	0	34	3
2015	Jan	1	4,400	495	2,134	7	713	61	22	200	22	97	0	32	3
	Feb		3,690	419	1,902	6	609	52	20	185	21	95	0	30	3
	Mar		2,676	284	872	4	397	34	22	122	13	40	0	18	2
	Apr	2	3,046	315	784	4	434	37	22	138	14	36	0	20	2
	May		2,679	273	588	3	370	32	21	128	13	28	0	18	2
	Jun		2,806	286	616	3	388	34	22	128	13	28	0	18	2
	Jul	3	2,755	280	588	3	379	33	23	120	12	26	0	16	1
	Aug		3,381	350	872	4	482	42	21	161	17	42	0	23	2
	Sep		3,250	338	879	4	468	40	22	148	15	40	0	21	2
	Oct	4	3,149	328	867	4	455	39	22	143	15	39	0	21	2
	Nov		2,712	276	592	3	374	32	21	129	13	28	0	18	2
	Dec		3,079	319	807	4	440	38	23	134	14	35	0	19	2
2016	Jan	1	2,448	262	721	4	402	34	21	117	12	34	0	19	2
	Feb		2,486	265	704	4	405	35	20	124	13	35	0	20	2
	Mar		2,627	279	709	4	424	36	23	114	12	31	0	18	2
	Apr	2	2,166	228	550	3	346	30	21	103	11	26	0	16	1
	May		2,131	225	559	3	343	29	22	97	10	25	0	16	1
	Jun		-	-	-	-	-	-	22	-	-	-	-	-	-
	Jul	3	4,354	463	1,206	6	707	61	21	207	22	57	0	34	3
	Aug		5,053	537	1,393	7	819	70	23	220	23	61	0	36	3
	Sep		5,124	543	1,370	7	826	71	22	233	25	62	0	38	3
	Oct	4	4,843	514	1,302	7	782	67	21	231	24	62	0	37	3
	Nov		5,073	538	1,364	7	819	70	22	231	24	62	0	37	3
	Dec		5,073	538	1,364	7	819	70	22	231	24	62	0	37	3
2017	Jan	1	4,842	531	1,397	8	900	77	22	220	24	64	0	41	3
	Feb		4,401	482	1,270	7	819	70	20	220	24	64	0	41	3
	Mar		5,062	555	1,461	8	941	80	23	220	24	64	0	41	3
	Apr	2	4,401	482	1,270	7	819	70	20	220	24	64	0	41	3
	May		5,062	555	1,461	8	941	80	23	220	24	64	0	41	3
	Jun		4,857	532	1,400	8	903	77	22	221	24	64	0	41	4
	Jul	3	4,946	540	1,380	8	916	78	21	236	26	66	0	44	4
	Aug		5,201	569	1,481	8	965	82	23	226	25	64	0	42	4
	Sep		3,825	419	1,085	6	710	61	21	182	20	52	0	34	3
	Oct	4	4,027	441	1,140	6	747	64	22	183	20	52	0	34	3
	Nov		4,037	442	1,141	6	749	64	22	183	20	52	0	34	3
	Dec		3,683	404	1,065	6	685	59	21	175	19	51	0	33	3
2018	Jan	1	3,267	376	1,114	6	721	61	23	142	16	48	0	31	3
	Feb		2,840	327	969	5	627	53	20	142	16	48	0	31	3
	Mar		3,125	360	1,065	6	689	58	22	142	16	48	0	31	3
	Apr	2	4,235	483	1,320	8	925	79	21	202	23	63	0	44	4
	May		5,742	670	2,196	11	1,275	108	23	250	29	95	0	55	5
	Jun		5,042	592	2,025	10	1,122	95	21	240	28	96	0	53	5
	Jul	3	6,436	763	2,769	13	1,442	122	22	293	35	126	1	66	6
	Aug		6,661	788	2,832	13	1,491	126	23	290	34	123	1	65	5
	Sep		5,903	702	2,590	12	1,328	113	20	295	35	130	1	66	6
	Oct	4	7,456	891	3,396	15	1,682	142	23	324	39	148	1	73	6
	Nov		6,679	790	2,822	13	1,497	127	22	304	36	128	1	68	6
	Dec		6,252	741	2,674	13	1,403	119	21	298	35	127	1	67	6
2019	Jan	1	5,281	653	2,612	12	1,358	115	23	230	28	114	1	59	5
	Feb		3,994	495	2,011	9	1,031	87	20	200	25	101	0	52	4
	Mar		3,564	437	1,665	8	915	77	21	170	21	79	0	44	4
	Apr	2	646	76	232	1	161	14	22	29	3	11	0	7	1
	May		44	5	8	0	11	1	23	2	0	0	0	0	0
	Jun		-	-	-	-	-	-	20	-	-	-	-	-	-

Notes:

lb/month = pounds per month; lb/day = pounds per day.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013, based on sources and methodologies depicted in previous tables in this section.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Criteria Pollutants – Construction Worker Vehicle Emissions

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Worker Vehicle Emissions

Carbon Monoxide (CO)								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	575	23	25
	Aug		8,222	7,150	285,983	4,877	21	232
	Sep		10,564	9,186	367,443	6,266	22	285
	Oct	4	10,566	9,188	367,513	6,267	23	272
	Nov		8,690	7,557	302,261	5,154	20	258
	Dec		9,378	8,155	326,191	5,562	23	242
2015	Jan	1	7,680	6,678	267,130	4,084	22	186
	Feb		6,000	5,217	208,696	3,191	20	160
	Mar		5,244	4,560	182,400	2,789	22	127
	Apr	2	6,096	5,301	212,035	3,242	22	147
	May		5,678	4,937	197,496	3,019	21	144
	Jun		5,928	5,155	206,191	3,152	22	143
	Jul	3	6,010	5,226	209,043	3,196	23	139
	Aug		6,036	5,249	209,948	3,210	21	153
	Sep		5,632	4,897	195,896	2,995	22	136
	Oct	4	5,312	4,619	184,765	2,825	22	128
	Nov		4,126	3,588	143,513	2,194	21	104
	Dec		4,782	4,158	166,330	2,543	23	111
2016	Jan	1	4,894	4,256	170,226	2,342	21	112
	Feb		4,972	4,323	172,939	2,379	20	119
	Mar		4,734	4,117	164,661	2,265	23	98
	Apr	2	3,738	3,250	130,017	1,789	21	85
	May		3,540	3,078	123,130	1,694	22	77
	Jun		-	-	-	-	22	-
	Jul	3	3,664	3,186	127,443	1,753	21	83
	Aug		5,198	4,520	180,800	2,487	23	108
	Sep		7,316	6,362	254,470	3,501	22	159
	Oct	4	6,930	6,026	241,043	3,316	21	158
	Nov		7,260	6,313	252,522	3,474	22	158
	Dec		6,560	5,704	228,174	3,139	22	143
2017	Jan	1	7,140	6,209	248,348	3,068	22	139
	Feb		7,400	6,435	257,391	3,180	20	159
	Mar		7,870	6,843	273,739	3,382	23	147
	Apr	2	6,600	5,739	229,565	2,836	20	142
	May		5,790	5,035	201,391	2,488	23	108
	Jun		5,090	4,426	177,043	2,187	22	99
	Jul	3	5,460	4,748	189,913	2,346	21	112
	Aug		5,532	4,810	192,417	2,377	23	103
	Sep		3,786	3,292	131,687	1,627	21	77
	Oct	4	4,304	3,743	149,704	1,850	22	84
	Nov		5,060	4,400	176,000	2,174	22	99
	Dec		4,500	3,913	156,522	1,934	21	92
2018	Jan	1	4,600	4,000	160,000	1,781	23	77
	Feb		4,000	3,478	139,130	1,548	20	77
	Mar		4,400	3,826	153,043	1,703	22	77
	Apr	2	9,020	7,843	313,739	3,491	21	166
	May		11,774	10,238	409,530	4,557	23	198
	Jun		9,468	8,233	329,322	3,665	21	175
	Jul	3	12,100	10,522	420,870	4,684	22	213
	Aug		12,596	10,953	438,122	4,876	23	212
	Sep		11,700	10,174	406,957	4,529	20	226
	Oct	4	14,130	12,287	491,478	5,469	23	238
	Nov		12,848	11,172	446,887	4,973	22	226
	Dec		11,934	10,377	415,096	4,619	21	220
2019	Jan	1	10,932	9,506	380,243	3,862	23	168
	Feb		8,032	6,984	279,374	2,838	20	142
	Mar		7,126	6,197	247,861	2,518	21	120
	Apr	2	1,220	1,061	42,435	431	22	20
	May		240	209	8,348	85	23	4
	Jun		150	130	5,217	53	20	3

Carbon Monoxide (CO)
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2

EMFAC2011 Category: LDA (gasoline)

Year	CO Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	1.5136	2.9673	0.5114	4.9923
2015	1.3536	2.6098	0.4524	4.4158
2016	1.2201	2.3216	0.4023	3.9440
2017	1.0981	2.0522	0.3586	3.5089
2018	0.9949	1.8226	0.3219	3.1394
2019	0.9120	1.6429	0.2919	2.8468

EMFAC2011 Category: LDT1 (gasoline)

Year	CO Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	3.7951	7.9917	1.1448	12.9317
2015	3.4456	7.1928	1.0483	11.6867
2016	3.1382	6.4717	0.9623	10.5722
2017	2.8600	5.8191	0.8837	9.5628
2018	2.6112	5.2365	0.8125	8.6602
2019	2.4161	4.7896	0.7497	7.9554

EMFAC2011 Category: LDT2 (gasoline)

Year	CO Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	2.1064	4.0086	0.6817	6.7967
2015	1.9025	3.5895	0.6122	6.1042
2016	1.7186	3.2131	0.5489	5.4806
2017	1.5495	2.8620	0.4916	4.9032
2018	1.4029	2.5562	0.4412	4.4003
2019	1.2818	2.3073	0.3982	3.9873

Year	Combined Factor	
	(g/mi)	(lb/mi)
2014	7.7350	0.0171
2015	6.9347	0.0153
2016	6.2398	0.0138
2017	5.6039	0.0124
2018	5.0478	0.0111
2019	4.6075	0.0102

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile.
Shaded cells represent maximum daily emissions.

¹ Assumes an occupancy factor of 1.15 workers per vehicle.

² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.

³ Workdays assume a 5-day-per-week workweek.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Worker Vehicle Emissions

Reactive Organic Gases (ROG)								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	51	23	2
	Aug		8,222	7,150	285,983	433	21	21
	Sep		10,564	9,186	367,443	556	22	25
	Oct	4	10,566	9,188	367,513	556	23	24
	Nov		8,690	7,557	302,261	457	20	23
	Dec		9,424	8,195	327,791	494	23	21
2015	Jan	1	7,686	6,683	267,339	362	22	16
	Feb		6,000	5,217	208,696	283	20	14
	Mar		5,644	4,908	196,313	247	22	11
	Apr	2	6,096	5,301	212,035	287	22	13
	May		5,720	4,974	198,957	268	21	13
	Jun		5,970	5,191	207,652	279	22	13
	Jul	3	6,648	5,781	231,235	283	23	12
	Aug		8,262	7,184	287,374	284	21	14
	Sep		7,880	6,852	274,087	265	22	12
	Oct	4	7,380	6,417	256,696	250	22	11
2016	Nov		6,214	5,403	216,139	194	21	9
	Dec		6,762	5,880	235,200	225	23	10
	Jan	1	6,850	5,957	238,261	207	21	10
	Feb		7,052	6,132	245,287	210	20	11
	Mar		7,314	6,360	254,400	200	23	9
	Apr	2	6,342	5,515	220,591	158	21	8
	May		6,004	5,221	208,835	150	22	7
	Jun		5,500	4,783	191,304	-	22	-
	Jul	3	8,728	7,590	303,583	155	21	7
	Aug		7,628	6,633	265,322	220	23	10
	Sep		8,300	7,217	288,696	309	22	14
	Oct	4	7,932	6,897	275,896	293	21	14
	Nov		8,624	7,499	299,965	307	22	14
	Dec		7,924	6,890	275,617	277	22	13
2017	Jan	1	8,744	7,603	304,139	270	22	12
	Feb		9,640	8,383	335,304	280	20	14
	Mar		10,446	9,083	363,339	298	23	13
	Apr	2	8,540	7,426	297,043	250	20	12
	May		7,846	6,823	272,904	219	23	10
	Jun		6,614	5,751	230,052	192	22	9
	Jul	3	6,520	5,670	226,783	206	21	10
	Aug		5,872	5,106	204,243	209	23	9
	Sep		3,936	3,423	136,904	143	21	7
	Oct	4	4,304	3,743	149,704	163	22	7
2018	Nov		5,060	4,400	176,000	191	22	9
	Dec		4,500	3,913	156,522	170	21	8
	Jan	1	4,600	4,000	160,000	156	23	7
	Feb		4,000	3,478	139,130	136	20	7
	Mar		4,400	3,826	153,043	149	22	7
	Apr	2	7,660	6,661	266,435	306	21	15
	May		9,200	8,000	320,000	399	23	17
	Jun		8,460	7,357	294,261	321	21	15
	Jul	3	10,604	9,221	368,835	410	22	19
	Aug		11,086	9,640	385,600	427	23	19
	Sep		9,850	8,565	342,609	397	20	20
	Oct	4	12,078	10,503	420,104	479	23	21
	Nov		12,088	10,511	420,452	436	22	20
	Dec		11,634	10,117	404,661	405	21	19
2019	Jan	1	10,932	9,506	380,243	340	23	15
	Feb		8,032	6,984	279,374	250	20	12
	Mar		7,226	6,283	251,339	222	21	11
	Apr	2	1,220	1,061	42,435	38	22	2
	May		240	209	8,348	7	23	0
	Jun		150	130	5,217	5	20	0

Reactive Organic Gases (ROG)
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2

EMFAC2011 Category: LDA (gasoline)

Year	ROG Emission Factors (g/mi)			
	Diurnal	Hot Soak	Run Loss	Rest Loss
2014	0.0223	0.0342	0.0762	0.0171
2015	0.0198	0.0310	0.0688	0.0156
2016	0.0178	0.0282	0.0627	0.0143
2017	0.0159	0.0255	0.0569	0.0131
2018	0.0144	0.0230	0.0518	0.0120
2019	0.0131	0.0209	0.0488	0.0110
Year	Running	Idle	Starting	Total
2014	0.0431	0.2074	0.0419	0.4422
2015	0.0363	0.1780	0.0358	0.3852
2016	0.0308	0.1539	0.0308	0.3384
2017	0.0256	0.1315	0.0265	0.2948
2018	0.0211	0.1125	0.0230	0.2578
2019	0.0178	0.0983	0.0203	0.2301

EMFAC2011 Category: LDT1 (gasoline)

Year	ROG Emission Factors (g/mi)			
	Diurnal	Hot Soak	Run Loss	Rest Loss
2014	0.0579	0.0717	0.2593	0.0402
2015	0.0550	0.0684	0.2466	0.0387
2016	0.0525	0.0653	0.2348	0.0373
2017	0.0500	0.0623	0.2236	0.0360
2018	0.0478	0.0595	0.2131	0.0348
2019	0.0459	0.0574	0.2045	0.0337
Year	Running	Idle	Starting	Total
2014	0.1162	0.5384	0.0897	1.1735
2015	0.1001	0.4748	0.0810	1.0645
2016	0.0862	0.4164	0.0734	0.9659
2017	0.0737	0.3641	0.0664	0.8762
2018	0.0629	0.3184	0.0602	0.7966
2019	0.0564	0.2885	0.0552	0.7416

EMFAC2011 Category: LDT2 (gasoline)

Year	ROG Emission Factors (g/mi)			
	Diurnal	Hot Soak	Run Loss	Rest Loss
2014	0.0230	0.0344	0.1167	0.0183
2015	0.0217	0.0328	0.1102	0.0177
2016	0.0205	0.0312	0.1036	0.0172
2017	0.0194	0.0295	0.0973	0.0166
2018	0.0183	0.0278	0.0916	0.0160
2019	0.0175	0.0263	0.0870	0.0156
Year	Running	Idle	Starting	Total
2014	0.0538	0.2690	0.0517	0.5668
2015	0.0466	0.2380	0.0456	0.5126
2016	0.0403	0.2091	0.0403	0.4621
2017	0.0342	0.1819	0.0354	0.4142
2018	0.0290	0.1583	0.0313	0.3723
2019	0.0252	0.1400	0.0278	0.3393

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile.
Shaded cells represent maximum daily emissions.

¹ Assumes an occupancy factor of 1.15 workers per vehicle.

² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.

³ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013; CARB EMFAC2011.

Year	Combined Factor	
	(g/mi)	(lb/mi)
2014	0.6865	0.0015
2015	0.6145	0.0014
2016	0.5514	0.0012
2017	0.4931	0.0011
2018	0.4424	0.0010
2019	0.4054	0.0009

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Worker Vehicle Emissions

Nitrogen Oxides (NO _x)								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	46	23	2
	Aug		8,222	7,150	285,983	390	21	19
	Sep		10,564	9,186	367,443	501	22	23
	Oct	4	10,566	9,188	367,513	502	23	22
	Nov		8,690	7,557	302,261	413	20	21
	Dec		9,424	8,195	327,791	445	23	19
2015	Jan	1	7,686	6,683	267,339	332	22	15
	Feb		6,000	5,217	208,696	259	20	13
	Mar		5,644	4,908	196,313	226	22	10
	Apr	2	6,096	5,301	212,035	263	22	12
	May		5,720	4,974	198,957	245	21	12
	Jun		5,970	5,191	207,652	256	22	12
	Jul	3	6,648	5,781	231,235	259	23	11
	Aug		8,262	7,184	287,374	261	21	12
	Sep		7,880	6,852	274,087	243	22	11
	Oct	4	7,380	6,417	256,696	229	22	10
2016	Nov		6,214	5,403	216,139	178	21	8
	Dec		6,762	5,880	235,200	206	23	9
	Jan	1	6,850	5,957	238,261	192	21	9
	Feb		7,052	6,132	245,287	195	20	10
	Mar		7,314	6,360	254,400	186	23	8
	Apr	2	6,342	5,515	220,591	147	21	7
	May		6,004	5,221	208,835	139	22	6
	Jun		5,500	4,783	191,304	-	22	-
	Jul	3	8,728	7,590	303,583	144	21	7
	Aug		7,628	6,633	265,322	204	23	9
	Sep		8,300	7,217	288,696	287	22	13
	Oct	4	7,932	6,897	275,896	272	21	13
	Nov		8,624	7,499	299,965	285	22	13
	Dec		7,924	6,890	275,617	258	22	12
2017	Jan	1	8,744	7,603	304,139	255	22	12
	Feb		9,640	8,383	335,304	265	20	13
	Mar		10,446	9,083	363,339	282	23	12
	Apr	2	8,540	7,426	297,043	236	20	12
	May		7,846	6,823	272,904	207	23	9
	Jun		6,614	5,751	230,052	182	22	8
	Jul	3	6,520	5,670	226,783	195	21	9
	Aug		5,872	5,106	204,243	198	23	9
	Sep		3,936	3,423	136,904	135	21	6
	Oct	4	4,304	3,743	149,704	154	22	7
2018	Nov		5,060	4,400	176,000	181	22	8
	Dec		4,500	3,913	156,522	161	21	8
	Jan	1	4,600	4,000	160,000	151	23	7
	Feb		4,000	3,478	139,130	131	20	7
	Mar		4,400	3,826	153,043	144	22	7
	Apr	2	7,660	6,661	266,435	295	21	14
	May		9,200	8,000	320,000	386	23	17
	Jun		8,460	7,357	294,261	310	21	15
	Jul	3	10,604	9,221	368,835	396	22	18
	Aug		11,086	9,640	385,600	412	23	18
	Sep		9,850	8,565	342,609	383	20	19
	Oct	4	12,078	10,503	420,104	463	23	20
	Nov		12,088	10,511	420,452	421	22	19
	Dec		11,634	10,117	404,661	391	21	19
2019	Jan	1	10,932	9,506	380,243	329	23	14
	Feb		8,032	6,984	279,374	242	20	12
	Mar		7,226	6,283	251,339	215	21	10
	Apr	2	1,220	1,061	42,435	37	22	2
	May		240	209	8,348	7	23	0
	Jun		150	130	5,217	5	20	0

Nitrogen Oxides (NO _x)				
Assumptions and Emission Factors				

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2

EMFAC2011 Category: LDA (gasoline)

Year	NO _x Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	0.1220	0.1969	0.0343	0.3532
2015	0.1088	0.1781	0.0299	0.3167
2016	0.0980	0.1620	0.0262	0.2862
2017	0.0886	0.1485	0.0229	0.2600
2018	0.0807	0.1375	0.0202	0.2384
2019	0.0746	0.1287	0.0180	0.2213

EMFAC2011 Category: LDT1 (gasoline)

Year	NO _x Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	0.3417	0.6061	0.0643	1.0121
2015	0.3111	0.5660	0.0591	0.9362
2016	0.2844	0.5246	0.0544	0.8633
2017	0.2600	0.4864	0.0500	0.7965
2018	0.2381	0.4513	0.0461	0.7355
2019	0.2203	0.4171	0.0425	0.6799

EMFAC2011 Category: LDT2 (gasoline)

Year	NO _x Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	0.2292	0.3999	0.0650	0.6940
2015	0.2030	0.3582	0.0575	0.6187
2016	0.1800	0.3185	0.0507	0.5492
2017	0.1596	0.2840	0.0446	0.4882
2018	0.1423	0.2545	0.0392	0.4361
2019	0.1281	0.2293	0.0347	0.3921

Year	Combined Factor	
	(g/mi)	(lb/mi)
2014	0.6190	0.0014
2015	0.5630	0.0012
2016	0.5119	0.0011
2017	0.4666	0.0010
2018	0.4271	0.0009
2019	0.3930	0.0009

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile.
Shaded cells represent maximum daily emissions.

¹ Assumes an occupancy factor of 1.15 workers per vehicle.

² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.

³ Workdays assume a 5-day-per-week workweek.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Worker Vehicle Emissions

Sulfur Oxides (SO _x)								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	1	23	0.0
	Aug		8,222	7,150	285,983	5	21	0.3
	Sep		10,564	9,186	367,443	7	22	0.3
	Oct	4	10,566	9,188	367,513	7	23	0.3
	Nov		8,690	7,557	302,261	6	20	0.3
	Dec		9,424	8,195	327,791	6	23	0.3
2015	Jan	1	7,686	6,683	267,339	5	22	0.2
	Feb		6,000	5,217	208,696	4	20	0.2
	Mar		5,644	4,908	196,313	3	22	0.2
	Apr	2	6,096	5,301	212,035	4	22	0.2
	May		5,720	4,974	198,957	4	21	0.2
	Jun		5,970	5,191	207,652	4	22	0.2
	Jul	3	6,648	5,781	231,235	4	23	0.2
	Aug		8,262	7,184	287,374	4	21	0.2
	Sep		7,880	6,852	274,087	4	22	0.2
	Oct	4	7,380	6,417	256,696	4	22	0.2
	Nov		6,214	5,403	216,139	3	21	0.1
	Dec		6,762	5,880	235,200	3	23	0.1
2016	Jan	1	6,850	5,957	238,261	3	21	0.2
	Feb		7,052	6,132	245,287	3	20	0.2
	Mar		7,314	6,360	254,400	3	23	0.1
	Apr	2	6,342	5,515	220,591	2	21	0.1
	May		6,004	5,221	208,835	2	22	0.1
	Jun		5,500	4,783	191,304	-	22	-
	Jul	3	8,728	7,590	303,583	2	21	0.1
	Aug		7,628	6,633	265,322	3	23	0.1
	Sep		8,300	7,217	288,696	5	22	0.2
	Oct	4	7,932	6,897	275,896	5	21	0.2
	Nov		8,624	7,499	299,965	5	22	0.2
	Dec		7,924	6,890	275,617	4	22	0.2
2017	Jan	1	8,744	7,603	304,139	5	22	0.2
	Feb		9,640	8,383	335,304	5	20	0.2
	Mar		10,446	9,083	363,339	5	23	0.2
	Apr	2	8,540	7,426	297,043	4	20	0.2
	May		7,846	6,823	272,904	4	23	0.2
	Jun		6,614	5,751	230,052	3	22	0.2
	Jul	3	6,520	5,670	226,783	4	21	0.2
	Aug		5,872	5,106	204,243	4	23	0.2
	Sep		3,936	3,423	136,904	3	21	0.1
	Oct	4	4,304	3,743	149,704	3	22	0.1
	Nov		5,060	4,400	176,000	3	22	0.2
	Dec		4,500	3,913	156,522	3	21	0.1
2018	Jan	1	4,600	4,000	160,000	3	23	0.1
	Feb		4,000	3,478	139,130	3	20	0.1
	Mar		4,400	3,826	153,043	3	22	0.1
	Apr	2	7,660	6,661	266,435	6	21	0.3
	May		9,200	8,000	320,000	8	23	0.3
	Jun		8,460	7,357	294,261	6	21	0.3
	Jul	3	10,604	9,221	368,835	8	22	0.4
	Aug		11,086	9,640	385,600	8	23	0.4
	Sep		9,850	8,565	342,609	8	20	0.4
	Oct	4	12,078	10,503	420,104	9	23	0.4
	Nov		12,088	10,511	420,452	9	22	0.4
	Dec		11,634	10,117	404,661	8	21	0.4
2019	Jan	1	10,932	9,506	380,243	7	23	0.3
	Feb		8,032	6,984	279,374	5	20	0.3
	Mar		7,226	6,283	251,339	5	21	0.2
	Apr	2	1,220	1,061	42,435	1	22	0.0
	May		240	209	8,348	0	23	0.0
	Jun		150	130	5,217	0	20	0.0

Sulfur Oxides (SO _x)
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2

EMFAC2011 Category: LDA (gasoline)

Year	SO _x Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	0.00380	0.00380	0.00015	0.00774
2015	0.00380	0.00380	0.00014	0.00774
2016	0.00380	0.00380	0.00014	0.00774
2017	0.00380	0.00380	0.00014	0.00774
2018	0.00380	0.00380	0.00014	0.00774
2019	0.00379	0.00379	0.00014	0.00772

EMFAC2011 Category: LDT1 (gasoline)

Year	SO _x Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	0.00438	0.00438	0.00017	0.00893
2015	0.00438	0.00438	0.00017	0.00893
2016	0.00438	0.00438	0.00017	0.00893
2017	0.00438	0.00438	0.00017	0.00892
2018	0.00438	0.00438	0.00016	0.00892
2019	0.00437	0.00437	0.00016	0.00890

EMFAC2011 Category: LDT2 (gasoline)

Year	SO _x Emission Factors (g/mi)			
	Running	Idle	Starting	Total
2014	0.00516	0.00516	0.00019	0.01051
2015	0.00516	0.00516	0.00018	0.01051
2016	0.00516	0.00516	0.00018	0.01050
2017	0.00515	0.00515	0.00018	0.01049
2018	0.00515	0.00515	0.00018	0.01048
2019	0.00514	0.00514	0.00018	0.01046

Year	Combined Factor	
	(g/mi)	(lb/mi)
2014	0.00865	0.00002
2015	0.00865	0.00002
2016	0.00865	0.00002
2017	0.00864	0.00002
2018	0.00864	0.00002
2019	0.00862	0.00002

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile.

Shaded cells represent maximum daily emissions.

¹ Assumes an occupancy factor of 1.15 workers per vehicle.

² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.

³ Workdays assume a 5-day-per-week workweek.

LAX MSC North Project Draft EIR
Criteria Pollutants - Construction Worker Vehicle Emissions

Respirable Particulate Matter (PM ₁₀)								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	27	23	1
	Aug		8,222	7,150	285,983	230	21	11
	Sep		10,564	9,186	367,443	295	22	13
	Oct	4	10,566	9,188	367,513	295	23	13
	Nov		8,690	7,557	302,261	243	20	12
	Dec		9,424	8,195	327,791	262	23	11
2015	Jan	1	7,686	6,683	267,339	214	22	10
	Feb		6,000	5,217	208,696	167	20	8
	Mar		5,644	4,908	196,313	146	22	7
	Apr	2	6,096	5,301	212,035	170	22	8
	May		5,720	4,974	198,957	158	21	8
	Jun		5,970	5,191	207,652	165	22	8
	Jul	3	6,648	5,781	231,235	167	23	7
	Aug		8,262	7,184	287,374	168	21	8
	Sep		7,880	6,852	274,087	157	22	7
	Oct	4	7,380	6,417	256,696	148	22	7
	Nov		6,214	5,403	216,139	115	21	5
	Dec		6,762	5,880	235,200	133	23	6
2016	Jan	1	6,850	5,957	238,261	136	21	6
	Feb		7,052	6,132	245,287	138	20	7
	Mar		7,314	6,360	254,400	132	23	6
	Apr	2	6,342	5,515	220,591	104	21	5
	May		6,004	5,221	208,835	98	22	4
	Jun		5,500	4,783	191,304	-	22	-
	Jul	3	8,728	7,590	303,583	102	21	5
	Aug		7,628	6,633	265,322	145	23	6
	Sep		8,300	7,217	288,696	203	22	9
	Oct	4	7,932	6,897	275,896	193	21	9
	Nov		8,624	7,499	299,965	202	22	9
	Dec		7,924	6,890	275,617	182	22	8
2017	Jan	1	8,744	7,603	304,139	198	22	9
	Feb		9,640	8,383	335,304	205	20	10
	Mar		10,446	9,083	363,339	218	23	9
	Apr	2	8,540	7,426	297,043	183	20	9
	May		7,846	6,823	272,904	161	23	7
	Jun		6,614	5,751	230,052	141	22	6
	Jul	3	6,520	5,670	226,783	152	21	7
	Aug		5,872	5,106	204,243	154	23	7
	Sep		3,936	3,423	136,904	105	21	5
	Oct	4	4,304	3,743	149,704	119	22	5
	Nov		5,060	4,400	176,000	140	22	6
	Dec		4,500	3,913	156,522	125	21	6
2018	Jan	1	4,600	4,000	160,000	128	23	6
	Feb		4,000	3,478	139,130	111	20	6
	Mar		4,400	3,826	153,043	122	22	6
	Apr	2	7,660	6,661	266,435	250	21	12
	May		9,200	8,000	320,000	327	23	14
	Jun		8,460	7,357	294,261	263	21	13
	Jul	3	10,604	9,221	368,835	336	22	15
	Aug		11,086	9,640	385,600	349	23	15
	Sep		9,850	8,565	342,609	324	20	16
	Oct	4	12,078	10,503	420,104	392	23	17
	Nov		12,088	10,511	420,452	356	22	16
	Dec		11,634	10,117	404,661	331	21	16
2019	Jan	1	10,932	9,506	380,243	303	23	13
	Feb		8,032	6,984	279,374	223	20	11
	Mar		7,226	6,283	251,339	198	21	9
	Apr	2	1,220	1,061	42,435	34	22	2
	May		240	209	8,348	7	23	0
	Jun		150	130	5,217	4	20	0

Respirable Particulate Matter (PM ₁₀)
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2

EMFAC2011 Category: LDA (gasoline)

Year	PM ₁₀ Emission Factors (g/mi)		
	Running	Idle	Starting
2014	0.0021	0.0114	0.0005
2015	0.0020	0.0108	0.0005
2016	0.0019	0.0105	0.0005
2017	0.0018	0.0105	0.0005
2018	0.0018	0.0105	0.0006
2019	0.0019	0.0107	0.0006
Year	Tire Wear	Brake Wear	Total
2014	0.0080	0.0367	0.0588
2015	0.0080	0.0367	0.0580
2016	0.0080	0.0367	0.0577
2017	0.0080	0.0367	0.0576
2018	0.0080	0.0367	0.0577
2019	0.0080	0.0367	0.0579

EMFAC2011 Category: LDT1 (gasoline)

Year	PM ₁₀ Emission Factors (g/mi)		
	Running	Idle	Starting
2014	0.0052	0.0265	0.0010
2015	0.0048	0.0250	0.0010
2016	0.0045	0.0237	0.0009
2017	0.0042	0.0225	0.0009
2018	0.0040	0.0215	0.0009
2019	0.0038	0.0206	0.0009
Year	Tire Wear	Brake Wear	Total
2014	0.0080	0.0367	0.0775
2015	0.0080	0.0367	0.0756
2016	0.0080	0.0367	0.0738
2017	0.0080	0.0367	0.0724
2018	0.0080	0.0367	0.0711
2019	0.0080	0.0367	0.0700

EMFAC2011 Category: LDT2 (gasoline)

Year	PM ₁₀ Emission Factors (g/mi)		
	Running	Idle	Starting
2014	0.0022	0.0123	0.0005
2015	0.0021	0.0117	0.0005
2016	0.0020	0.0113	0.0005
2017	0.0019	0.0111	0.0005
2018	0.0019	0.0111	0.0005
2019	0.0019	0.0111	0.0006
Year	Tire Wear	Brake Wear	Total
2014	0.0080	0.0367	0.0597
2015	0.0080	0.0367	0.0590
2016	0.0080	0.0367	0.0586
2017	0.0080	0.0367	0.0583
2018	0.0080	0.0367	0.0583
2019	0.0080	0.0367	0.0583

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile.
Shaded cells represent maximum daily emissions.

¹ Assumes an occupancy factor of 1.15 workers per vehicle.

² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.

³ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013; CARB EMFAC2011.

Year	Combined Factor	
	(g/mi)	(lb/mi)
2014	0.0646	0.00014
2015	0.0635	0.00014
2016	0.0627	0.00014
2017	0.0622	0.00014
2018	0.0618	0.00014
2019	0.0616	0.00014

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Criteria Pollutants - Construction Worker Vehicle Emissions

Fine Particulate Matter (PM _{2.5})								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	8	23	0
	Aug		8,222	7,150	285,983	69	21	3
	Sep		10,564	9,186	367,443	89	22	4
	Oct	4	10,566	9,188	367,513	89	23	4
	Nov		8,690	7,557	302,261	73	20	4
	Dec		9,424	8,195	327,791	79	23	3
2015	Jan	1	7,686	6,683	267,339	64	22	3
	Feb		6,000	5,217	208,696	50	20	2
	Mar		5,644	4,908	196,313	44	22	2
	Apr	2	6,096	5,301	212,035	51	22	2
	May		5,720	4,974	198,957	47	21	2
	Jun		5,970	5,191	207,652	49	22	2
	Jul	3	6,648	5,781	231,235	50	23	2
	Aug		8,262	7,184	287,374	50	21	2
	Sep		7,880	6,852	274,087	47	22	2
	Oct	4	7,380	6,417	256,696	44	22	2
2016	Nov		6,214	5,403	216,139	34	21	2
	Dec		6,762	5,880	235,200	40	23	2
	Jan	1	6,850	5,957	238,261	40	21	2
	Feb		7,052	6,132	245,287	41	20	2
	Mar		7,314	6,360	254,400	39	23	2
	Apr	2	6,342	5,515	220,591	31	21	1
	May		6,004	5,221	208,835	29	22	1
	Jun		5,500	4,783	191,304	-	22	-
	Jul	3	8,728	7,590	303,583	30	21	1
	Aug		7,628	6,633	265,322	43	23	2
	Sep		8,300	7,217	288,696	61	22	3
	Oct	4	7,932	6,897	275,896	57	21	3
2017	Nov		8,624	7,499	299,965	60	22	3
	Dec		7,924	6,890	275,617	54	22	2
	Jan	1	8,744	7,603	304,139	59	22	3
	Feb		9,640	8,383	335,304	61	20	3
	Mar		10,446	9,083	363,339	65	23	3
	Apr	2	8,540	7,426	297,043	54	20	3
	May		7,846	6,823	272,904	48	23	2
	Jun		6,614	5,751	230,052	42	22	2
	Jul	3	6,520	5,670	226,783	45	21	2
	Aug		5,872	5,106	204,243	46	23	2
	Sep		3,936	3,423	136,904	31	21	1
	Oct	4	4,304	3,743	149,704	35	22	2
2018	Nov		5,060	4,400	176,000	42	22	2
	Dec		4,500	3,913	156,522	37	21	2
	Jan	1	4,600	4,000	160,000	38	23	2
	Feb		4,000	3,478	139,130	33	20	2
	Mar		4,400	3,826	153,043	36	22	2
	Apr	2	7,660	6,661	266,435	74	21	4
	May		9,200	8,000	320,000	97	23	4
	Jun		8,460	7,357	294,261	78	21	4
	Jul	3	10,604	9,221	368,835	99	22	5
	Aug		11,086	9,640	385,600	104	23	5
	Sep		9,850	8,565	342,609	96	20	5
	Oct	4	12,078	10,503	420,104	116	23	5
2019	Nov		12,088	10,511	420,452	106	22	5
	Dec		11,634	10,117	404,661	98	21	5
	Jan	1	10,932	9,506	380,243	90	23	4
	Feb		8,032	6,984	279,374	66	20	3
	Mar		7,226	6,283	251,339	58	21	3
	Apr	2	1,220	1,061	42,435	10	22	0
	May		240	209	8,348	2	23	0
	Jun		150	130	5,217	1	20	0

Fine Particulate Matter (PM _{2.5})
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2

EMFAC2011 Category: LDA (gasoline)

Year	PM _{2.5} Emission Factors (g/mi)		
	Running	Idle	Starting
2014	0.0019	0.0105	0.0005
2015	0.0018	0.0099	0.0005
2016	0.0017	0.0097	0.0005
2017	0.0017	0.0097	0.0005
2018	0.0017	0.0098	0.0005
2019	0.0017	0.0099	0.0005
Year	Tire Wear	Brake Wear	Total
2014	0.0020	0.0157	0.0306
2015	0.0020	0.0157	0.0300
2016	0.0020	0.0157	0.0297
2017	0.0020	0.0157	0.0296
2018	0.0020	0.0157	0.0297
2019	0.0020	0.0157	0.0300

EMFAC2011 Category: LDT1 (gasoline)

Year	PM _{2.5} Emission Factors (g/mi)		
	Running	Idle	Starting
2014	0.0048	0.0244	0.0009
2015	0.0044	0.0230	0.0009
2016	0.0041	0.0218	0.0008
2017	0.0039	0.0208	0.0008
2018	0.0037	0.0199	0.0008
2019	0.0035	0.0191	0.0008
Year	Tire Wear	Brake Wear	Total
2014	0.0020	0.0157	0.0478
2015	0.0020	0.0157	0.0461
2016	0.0020	0.0157	0.0446
2017	0.0020	0.0157	0.0433
2018	0.0020	0.0157	0.0422
2019	0.0020	0.0157	0.0412

EMFAC2011 Category: LDT2 (gasoline)

Year	PM _{2.5} Emission Factors (g/mi)		
	Running	Idle	Starting
2014	0.0020	0.0113	0.0005
2015	0.0019	0.0108	0.0004
2016	0.0018	0.0105	0.0005
2017	0.0018	0.0103	0.0005
2018	0.0018	0.0103	0.0005
2019	0.0018	0.0103	0.0005
Year	Tire Wear	Brake Wear	Total
2014	0.0020	0.0157	0.0315
2015	0.0020	0.0157	0.0309
2016	0.0020	0.0157	0.0305
2017	0.0020	0.0157	0.0303
2018	0.0020	0.0157	0.0303
2019	0.0020	0.0157	0.0303

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile.
Shaded cells represent maximum daily emissions.

¹ Assumes an occupancy factor of 1.15 workers per vehicle.

² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.

³ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013; CARB EMFAC2011.

Year	Combined Factor	
	(g/mi)	(lb/mi)
2014	0.0359	0.00008
2015	0.0350	0.00008
2016	0.0343	0.00008
2017	0.0338	0.00007
2018	0.0336	0.00007
2019	0.0334	0.00007

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Criteria Pollutants – On-Road Off-Site Hauling Emissions
 - On-Road Off-Site Hauling Emission Factors
 - On-Road Off-Site Hauling Emissions

LAX MSC North Project Draft EIR
Criteria Pollutants - On-Road Off-Site Hauling Emission Factors

Assumptions:

Region: South Coast

Season: Max of annual, summer, winter

Speed: Aggregated

Travel distance: Varies by type of hauling trip (see Hauling Trip Data table)

Representative vehicles: Flatbed truck, haul truck, end dump truck, cement mixer

EMFAC2011 Category: T7 single construction (diesel)

Model Year: 2007 (compliance with LAX construction-related air quality control measures)

Exhaust retrofit emissions control device: assumed reduction of PM₁₀ and PM_{2.5} by 85% (applied at time of emissions calculation)

Idle Time: 10 minutes per trip

Carbon Monoxide (CO) Emission Factors	Year	Running (g/mi)	Idle (g/trip)	Reactive Organic Compounds (ROG) Emission Factors	Year	Running (g/mi)	Idle (g/trip)
	2014	1.2986	9.5792		2014	0.2488	1.3307
	2015	1.3514	9.5792		2015	0.2604	1.3307
	2016	1.4016	9.5792		2016	0.2701	1.3307
	2017	1.4501	9.5792		2017	0.2794	1.3307
	2018	1.4972	9.5792		2018	0.2885	1.3307
	2019	1.5451	9.5792		2019	0.2947	1.3307

Nitrogen Oxides (NO_x) Emission Factors	Year	Running (g/mi)	Idle (g/trip)	Sulfur Oxides (SO_x) Emission Factors	Year	Running (g/mi)	Idle (g/trip)
	2014	6.3744	6.6074		2014	0.0167	0.0119
	2015	6.4693	6.6074		2015	0.0168	0.0119
	2016	6.5489	6.6074		2016	0.0168	0.0119
	2017	6.6258	6.6074		2017	0.0168	0.0119
	2018	6.7004	6.6074		2018	0.0168	0.0119
	2019	6.7373	6.6074		2019	0.0167	0.0119

Respirable Particulate Matter (PM₁₀) Emission Factors	Year	Running (g/mi)	Idle (g/trip)	Tire Wear (g/mi)	Break We (g/mi)	Rd. Dust (lb/mi)	<-- See Fugitive Dust table for road dust factor
	2014	0.0700	0.0219	0.0360	0.0617	0.0064	
	2015	0.0725	0.0219	0.0360	0.0617	0.0064	
	2016	0.0752	0.0219	0.0360	0.0617	0.0064	
	2017	0.0777	0.0219	0.0360	0.0617	0.0064	
	2018	0.0802	0.0219	0.0360	0.0617	0.0064	
	2019	0.0832	0.0219	0.0360	0.0617	0.0064	

Fine Particulate Matter (PM_{2.5}) Emission Factors	Year	Running (g/mi)	Idle (g/trip)	Tire Wear (g/mi)	Break We (g/mi)	Rd. Dust (lb/mi)	<-- See Fugitive Dust table for road dust factor
	2014	0.0644	0.0201	0.0090	0.0265	0.0016	
	2015	0.0667	0.0201	0.0090	0.0265	0.0016	
	2016	0.0692	0.0201	0.0090	0.0265	0.0016	
	2017	0.0715	0.0201	0.0090	0.0265	0.0016	
	2018	0.0738	0.0201	0.0090	0.0265	0.0016	
	2019	0.0765	0.0201	0.0090	0.0265	0.0016	

Notes:

g/mi = grams per mile; g/trip = grams per trip; lb/mi = pounds per mile.

Source: Ricondo & Associates, 2013; CARB EMFAC2011; USEPA AP-42 (road dust emission factor calculation).

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Criteria Pollutants - On-Road Off-Site Hauling Emissions

Year	Month	Quarter	Emissions (lb/month)						Workdays ¹	Emissions (lb/day)					
			CO	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}		CO	ROG	NO _x	SO _x	PM ₁₀	PM _{2.5}
2014	Jul	3	4	1	16	0	7	2	23	0	0	1	0.0	0	0
	Aug		28	5	113	0	51	13	21	1	0	5	0.0	2	1
	Sep		83	15	336	1	153	39	22	4	1	15	0.0	7	2
	Oct	4	91	17	373	1	171	43	23	4	1	16	0.0	7	2
	Nov		118	21	489	1	225	58	20	6	1	24	0.1	11	3
	Dec		139	25	579	2	266	68	23	6	1	25	0.1	12	3
2015	Jan	1	78	14	317	1	143	36	22	4	1	14	0.0	6	2
	Feb		25	5	105	0	48	12	20	1	0	5	0.0	2	1
	Mar		78	14	320	1	144	36	22	4	1	15	0.0	7	2
	Apr	2	36	6	133	0	58	15	22	2	0	6	0.0	3	1
	May		35	6	143	0	66	18	21	2	0	7	0.0	3	1
	Jun		11	2	46	0	21	5	22	1	0	2	0.0	1	0
	Jul	3	14	2	52	0	23	6	23	1	0	2	0.0	1	0
	Aug		53	9	149	0	61	15	21	3	0	7	0.0	3	1
	Sep		42	7	137	0	59	16	22	2	0	6	0.0	3	1
	Oct	4	14	3	56	0	26	7	22	1	0	3	0.0	1	0
	Nov		12	2	47	0	21	5	21	1	0	2	0.0	1	0
	Dec		13	2	52	0	23	6	23	1	0	2	0.0	1	0
2016	Jan	1	19	3	72	0	32	8	21	1	0	3	0.0	2	0
	Feb		16	3	65	0	30	8	20	1	0	3	0.0	1	0
	Mar		13	2	52	0	23	6	23	1	0	2	0.0	1	0
	Apr	2	12	2	48	0	21	5	21	1	0	2	0.0	1	0
	May		13	2	50	0	22	6	22	1	0	2	0.0	1	0
	Jun		-	-	-	-	-	-	22	-	-	-	-	-	-
	Jul	3	26	5	105	0	47	12	21	1	0	5	0.0	2	1
	Aug		593	110	2,426	6	1,087	274	23	26	5	105	0.3	47	12
	Sep		965	178	3,948	10	1,769	446	22	44	8	179	0.5	80	20
	Oct	4	921	170	3,769	10	1,689	425	21	44	8	179	0.5	80	20
	Nov		965	178	3,948	10	1,769	446	22	44	8	179	0.5	80	20
	Dec		838	155	3,430	9	1,537	387	22	38	7	156	0.4	70	18
2017	Jan	1	687	127	2,740	7	1,212	305	22	31	6	125	0.3	55	14
	Feb		659	121	2,619	7	1,158	292	20	33	6	131	0.3	58	15
	Mar		333	61	1,305	3	575	145	23	14	3	57	0.1	25	6
	Apr	2	128	23	486	1	213	54	20	6	1	24	0.1	11	3
	May		80	15	305	1	133	34	23	3	1	13	0.0	6	1
	Jun		59	11	226	1	99	25	22	3	0	10	0.0	5	1
	Jul	3	68	12	261	1	114	29	21	3	1	12	0.0	5	1
	Aug		37	7	143	0	63	16	23	2	0	6	0.0	3	1
	Sep		12	2	47	0	21	5	21	1	0	2	0.0	1	0
	Oct	4	12	2	49	0	22	5	22	1	0	2	0.0	1	0
	Nov		12	2	49	0	22	5	22	1	0	2	0.0	1	0
	Dec		12	2	47	0	21	5	21	1	0	2	0.0	1	0
2018	Jan	1	13	2	52	0	23	6	23	1	0	2	0.0	1	0
	Feb		11	2	45	0	20	5	20	1	0	2	0.0	1	0
	Mar		13	2	50	0	22	5	22	1	0	2	0.0	1	0
	Apr	2	10	2	38	0	17	4	21	0	0	2	0.0	1	0
	May		13	2	52	0	23	6	23	1	0	2	0.0	1	0
	Jun		12	2	47	0	21	5	21	1	0	2	0.0	1	0
	Jul	3	316	58	1,209	3	526	133	22	14	3	55	0.1	24	6
	Aug		330	61	1,264	3	550	139	23	14	3	55	0.1	24	6
	Sep		326	60	1,253	3	546	138	20	16	3	63	0.2	27	7
	Oct	4	406	75	1,562	4	681	172	23	18	3	68	0.2	30	7
	Nov		308	57	1,196	3	522	132	22	14	3	54	0.1	24	6
	Dec		564	105	2,230	6	978	246	21	27	5	106	0.3	47	12
2019	Jan	1	628	115	2,427	6	1,058	267	23	27	5	106	0.3	46	12
	Feb		520	96	2,011	5	877	221	20	26	5	101	0.2	44	11
	Mar		394	72	1,526	4	665	168	21	19	3	73	0.2	32	8
	Apr	2	92	17	355	1	155	39	22	4	1	16	0.0	7	2
	May		-	-	-	-	-	-	23	-	-	-	-	-	-
	Jun		-	-	-	-	-	-	20	-	-	-	-	-	-

Notes:

lb/month = pounds per month; lb/day = pounds per day.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013, Connico, Inc., 2013; CARB EMFAC2011.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Fugitive Dust Emission Factors

LAX MSC North Project Draft EIR
Fugitive Dust Emission Factors

General

lb/VMT = pounds per vehicle mile traveled

lb/hr = pounds per hour

Haul truck capacity estimated based on Freightliner 120SD (Chassis weight: 17,400 lb, Gross Vehicle Weight Rating = 66,000 lb)

Soil weight = 2,700 lb/yd³ (Assumption: Loose, wet excavated earth. Weight varies with moisture content, compaction, etc.)
Source: Caterpillar Performance Handbook (Edition 30, October 1999)

Mitigation: watering three times daily (per SCAQMD Rule 403)

Potential modeled emissions reduction: 61% PM₁₀ and 61% PM_{2.5}

Road Dust Emission Factors

Unpaved Roads

Applies to all on-road vehicles operating on the construction site.

Equation 1b from USEPA, AP-42, Fifth Edition, Volume I, Chapter 13.2.2 - Unpaved Roads, November 2006:

$$\text{Particulate emissions (lb/VMT)} = (k (s / 12)^a (S / 30)^d) / (M / 0.5)^c - C$$

Where:

k _{PM10} =	1.8 PM10 particle size multiplier (from AP-42 Table 13.2.2-2)
k _{PM2.5} =	0.18 PM2.5 particle size multiplier (from AP-42 Table 13.2.2-2)
s =	4.3% surface material silt content (%)
S =	15 mean vehicle speed (mph)
a =	1 empirical constant (from AP-42 Table 13.2.2-2)
d =	0.5 empirical constant (from AP-42 Table 13.2.2-2)
M =	0.5% % surface material moisture content (from LAX West Aircraft Maintenance Area Project Draft EIR)
c =	0.2 empirical constant (from AP-42 Table 13.2.2-2)
C _{PM10} =	0.00047 emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear (from AP-42 Table 13.2.2-3)
C _{PM2.5} =	0.00036 emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear (from AP-42 Table 13.2.2-3)

		<u>Mitigation</u>	
PM10 unpaved road factor (lb/VMT):	0.0110	61%	0.0043
PM2.5 unpaved road factor (lb/VMT):	0.0008	61%	0.0003

Multiply by speed (mph) to derive lb/hr:

		<u>Mitigation</u>	
PM10 unpaved road factor (lb/hr):	0.1648	61%	0.0643
PM2.5 unpaved road factor (lb/hr):	0.0118	61%	0.0046

Paved Roads

Applies to all on-road, off-site vehicles

Equation 1 from USEPA, AP-42, Fifth Edition, Volume I, Chapter 13.2.1 - Paved Roads, January 2011:

$$\text{Particulate emissions (lb/VMT)} = k (sL)^{0.91} \times (W)^{1.02}$$

Where:

k _{PM10} =	0.0022 PM10 particle size multiplier (from AP-42 Table 13.2.1-1)
k _{PM2.5} =	0.00054 PM2.5 particle size multiplier (from AP-42 Table 13.2.1-1)
sL =	0.1 road surface silt loading in g/m ² (from LAX West Aircraft Maintenance Area Project Draft EIR)
W =	[Varies] average fleet vehicle weight (tons) (CARB uses 2.4 tons as a fleet average vehicle weight factor)

Vehicle	Weight (tons)	PM10	PM2.5
		(lb/VMT)	(lb/VMT)
Employee vehicle	2.4	0.0007	0.0002
Haul truck	22.2	0.0064	0.0016

LAX MSC North Project Draft EIR
Fugitive Dust Emission Factors

Material Handling/Drop Operations

Applies to construction equipment involved in excavation/loading/unloading operations.

Specified equation from USEPA, AP-42, Fifth Edition, Volume I, Chapter 13.2.4 - Aggregate Handling and Storage Piles, November 2006:

$$\text{Particulate emissions (lb/ton)} = k (0.0032) \times (U / 5)^{1.3} / (M / 2)^{1.4}$$

Where:

k_{PM10} =	0.35 PM10 particle size multiplier (from AP-42 Chapter 13.2.4)
$k_{PM2.5}$ =	0.053 PM2.5 particle size multiplier (from AP-42 Chapter 13.2.4)
u =	6.2 mean wind speed in mph (from EPA Tanks v4.0. avg. wind speed for Los Angeles County)
M =	12 % material moisture content (default value used in CalEEMod 2013.2.2)

<u>Equipment Specs/Performance</u>	<u>Backhoe</u>	<u>Excavator</u>	<u>Loader</u>
Soil Capacity (yd3)	1	1.5	7.8
Cycle Time (min)	0.5	0.8	2.2
Number of Cycles/hr	120	74	27
Bucket Fill Factor	90%	90%	90%
Volume Moved (yd3/hour)	108	100	190
PM10 Emissions (lb/ton)	0.00012	0.00012	0.00012
PM2.5 Emissions (lb/ton)	0.00002	0.00002	0.00002
Material Handling Rate (ton/hr)	146	135	256
Mitigation	61%	61%	61%
PM10 Emissions (lb/hr)	0.007	0.006	0.012
PM2.5 Emissions (lb/hr)	0.001	0.001	0.002

Soil weight = 2,700 lb/yd3 (Assumption: Loose, wet excavated earth. Weight varies with moisture content, compaction, etc.)
Source: Caterpillar Performance Handbook (Edition 30, October 1999)

Scraping

Scraper emissions based on USEPA, AP-42, Fifth Edition, Volume I, Chapter 13.2.3 - Heavy Construction Operations, January 1995, Table 13.2.3-1

Cycle time = load time (5 minutes) + maneuver and dump time (5 minutes) + travel time (10 minutes), per MARRS Services, 30 Jul 2002.

Equation: Scraper emissions (lb/hr) = k * TSP * rate

Where:

k_{PM10} =	0.35 PM10 particle size multiplier (from AP-42 Chapter 13.2.4)
$k_{PM2.5}$ =	0.053 PM2.5 particle size multiplier (from AP-42 Chapter 13.2.4)
TSP =	0.058 emission rate for removing topsoil in lb TSP/ton (from AP-42 Table 11.9-4)
rate =	[Varies] excavation rate in tons/hr

<u>Equipment Specs/Performance</u>	<u>Scraper</u>
Soil Capacity (yd3)	17
Cycle Time (min)	20
Number of Cycles/hr	3
Volume Moved (yd3/hour)	51
Excavation rate (ton/hr)	68.9
Mitigation	61%
Scraping PM10 Emissions (lb/hr)	0.545
Scraping PM2.5 Emissions (lb/hr)	0.083

Soil weight = 2,700 lb/yd3 (Assumption: Loose, wet excavated earth. Weight varies with moisture content, compaction, etc.)
Source: Caterpillar Performance Handbook (Edition 30, October 1999)

LAX MSC North Project Draft EIR
Fugitive Dust Emission Factors

Grading

Equation from USEPA, AP-42, Fifth Edition, Volume I, Chapter 11.9 - Western Surface Coal Mining, July 1998, Table 11.9-1

$$\text{PM}_{10} \text{ Emissions (lb/VMT)} = 0.60 \times 0.051 (S)^2$$

$$\text{PM}_{2.5} \text{ Emissions (lb/VMT)} = 0.031 \times 0.04 (S)^{2.5}$$

Where:

S = 7.1 mean vehicle speed in mph (AP-42 default value is 7.1 mph)

PM ₁₀ Emissions (lb/VMT)	1.54
PM _{2.5} Emissions (lb/VMT)	0.17

Mitigation	61%
PM ₁₀ Emissions (lb/VMT)	0.60
PM _{2.5} Emissions (lb/VMT)	0.06

Source: CalEEMod

VMT = As/Wb x 43,560(sqft/acre) / 5,280(ft/mile)

Where:

As = varies acreage of grading site (acre)

Wb = 12 blade width (ft) CalEEMod default

Construction Components	Acres	VMT
Demo American Airlines Maintenance Shop	0.3001	0.2063
Relocate Electrical Substation	0.0455	0.0313
Demo American Airlines Leasehold Parking	3.5512	2.4414
Demo US Coast Guard Facility	0.9358	0.6434
Relocate US Airways Maintenance Facility	0.4553	0.3130
Relocate Water Deluge Tank and Pump Station	0.1759	0.1209
Relocate Electrical Vault #2	0.1718	0.1181
Removal RON Aircraft Parking Spaces	17.7084	12.1746
Relocate FAA NAVAIDS	0.0000	0.0000
Reconfigure New Landside/Service Roads	0.1759	0.1209
Relocate Utility Lines	0.0000	0.0000
Construct Taxilane C12	6.2387	4.2891
Construct Taxiway C14	12.2397	8.4148
Construct Ramp Tower	0.0000	0.0000
Construct Tunnel	0.0000	0.0000
Construct MSC Utilities	0.0000	0.0000
Construct MSC Apron (North)	35.3087	24.2747
Construct MSC Concourse (North)	0.0000	0.0000

Bulldozing

Equation from USEPA, AP-42, Fifth Edition, Volume I, Chapter 11.9 - Western Surface Coal Mining, July 1998, Table 11.9-1

Assumes overburden material (the earth between the topsoil and the coal seam (USEPA AP-42)

$$\text{PM}_{10} \text{ Emissions (lb/hr)} = 0.75 \times (1.0 (s))^{1.5} / M^{1.4}$$

$$\text{PM}_{10} \text{ Emissions (lb/hr)} = 0.105 \times (5.7 (s))^{1.2} / M^{1.3}$$

Where:

s = 6.9 % surface material silt content (value for overburden material from AP-42 Table 11.9-3)

M = 7.9 % material moisture content (value for overburden material from AP-42 Table 11.9-3)

Mitigation	61%
PM ₁₀ Emissions (lb/hr)	0.29
PM _{2.5} Emissions (lb/hr)	0.16

Compactors and Miscellaneous

Specified equation from USEPA, AP-42, Fifth Edition, Volume I, Chapter 13.2.4 - Aggregate Handling and Storage Piles, November 2006 (same as dozing):

Equation from USEPA, AP-42, Fifth Edition, Volume I, Chapter 11.9 - Western Surface Coal Mining, July 1998, Table 11.9-1

Assumes overburden material (the earth between the topsoil and the coal seam (USEPA AP-42)

$$\text{PM}_{10} \text{ Emissions (lb/hr)} = 0.75 \times (1.0 (s))^{1.5} / M^{1.4}$$

$$\text{PM}_{10} \text{ Emissions (lb/hr)} = 0.105 \times (5.7 (s))^{1.2} / M^{1.3}$$

Where:

s = 6.9 % surface material silt content (value for overburden material from AP-42 Table 11.9-3)

M = 7.9 % material moisture content (value for overburden material from AP-42 Table 11.9-3)

Mitigation	61%
PM ₁₀ Emissions (lb/hr)	0.29
PM _{2.5} Emissions (lb/hr)	0.16

**LAX MSC North Project Draft EIR
Fugitive Dust Emission Factors**

Demolition

Fugitive dust emissions from demolition of buildings calculate based on CalEEMod methodology.

LAX MSC North Project Construction Components to be Demolished	Building Demo			PM10 (lbs)	PM2.5 (lbs)	
	Building Area (sf)	Demo (CY)	Tons			
Relocation of American Airlines Maintenance Shop	13,800	1,278	639	0.703	0.109	<div> <div>PM₁₀ = 0.0011 lb/ton of debris</div> <div>PM_{2.5} = 0.00017 lb/ton of debris</div> </div>
Relocation of Electrical Substation	520	48	24	0.026	0.004	
Relocation of US Coast Guard Facility	39,400	3,648	1,824	2.006	0.310	
Relocation of US Airways Maintenance Facility	17,600	1,630	815	0.896	0.139	
Relocation of Water Deluge Tank and Pump Station	9,700	898	449	0.494	0.076	
Relocation of Electrical Vault #2	7,700	713	356	0.392	0.061	
FAA NAVAIDS	28,800	2,667	1,333	1.467	0.227	

From CalEEMod

1 sf floor space = 10 cf bldg. vol.

1 cf bldg. Vol. = 0.25 cf waste vol.

1 cy building waste = 0.5 ton weight

LAX MSC North Project Construction Components to be Demolished	Days					
	2014	2015	2016	2017	2018	2019
Relocation of American Airlines Maintenance Shop	0	0	30	0	0	0
Relocation of Electrical Substation	0	40	0	0	0	0
Relocation of US Coast Guard Facility	0	20	0	0	0	0
Relocation of US Airways Maintenance Facility	0	20	0	0	0	0
Relocation of Water Deluge Tank and Pump Station	20	0	0	0	0	0
Relocation of Electrical Vault #2	20	0	0	0	0	0
FAA NAVAIDS	20	0	0	0	0	0

LAX MSC North Project Construction Components to be Demolished	PM ₁₀ Emissions (lb/day)					
	2014	2015	2016	2017	2018	2019
Relocation of American Airlines Maintenance Shop	0	0	0.023426	0	0	0
Relocation of Electrical Substation	0	0.000662	0	0	0	0
Relocation of US Coast Guard Facility	0	0.100324	0	0	0	0
Relocation of US Airways Maintenance Facility	0	0.044815	0	0	0	0
Relocation of Water Deluge Tank and Pump Station	0.024699	0	0	0	0	0
Relocation of Electrical Vault #2	0.019606	0	0	0	0	0
FAA NAVAIDS	0.073333	0	0	0	0	0

LAX MSC North Project Construction Components to be Demolished	PM _{2.5} Emissions (lb/day)					
	2014	2015	2016	2017	2018	2019
Relocation of American Airlines Maintenance Shop	0	0	0.00362	0	0	0
Relocation of Electrical Substation	0	0.000102	0	0	0	0
Relocation of US Coast Guard Facility	0	0.015505	0	0	0	0
Relocation of US Airways Maintenance Facility	0	0.006926	0	0	0	0
Relocation of Water Deluge Tank and Pump Station	0.003817	0	0	0	0	0
Relocation of Electrical Vault #2	0.00303	0	0	0	0	0
FAA NAVAIDS	0.011333	0	0	0	0	0

Source: Ricondo & Associates, Inc., 2013; Connico, Inc., 2013 (building areas to be demolished); CalEEMod (fugitive dust estimation methodology).

**LAX MSC North Project Draft EIR
Fugitive Dust Emission Factors**

Rock Crusher

Source: USEPA, AP-42, Fifth Edition, Volume I, Chapter 11.19.2, August 2004.

100 tons/day assumed to be max daily crushing/screening rate.

Equipment/Activity	PM10 Controlled (lb/day)	PM2.5 Controlled (lb/day)
Screening Rock	0.074	0.005
Tertiary Rock Crushing	0.054	0.010
Conveyor Point (assumes 1)	0.005	0.001
Max Daily Total	0.133	0.016

<-- conservatively applied as lb/hr for crusher operation

Concrete Batch Plant

Concrete batch plant (central mix type)

Batch plant production rate	350 batches (CY) per hour (estimate)
Aggregate per batch	1865 pounds per batch or per CY (AP-42, Table 11.12-2, footnote "a")
Sand per batch	1428 pounds per batch or per CY (AP-42, Table 11.12-2, footnote "a")
Cement per batch	491 pounds per batch or per CY (AP-42, Table 11.12-2, footnote "a")
Cement supplement per batch	73 pounds per batch or per CY (AP-42, Table 11.12-2, footnote "a")
Total dry (aggregate, sand, cement, supplement)	3857 lb per CY
Total (Total dry + moisture)	3950 lb per CY
PM10 emission factor, central mixer loading	0.0048 lb/ton of aggregate, sand, cement, supplement, and moisture (AP-42, Table 11.12-1)
PM2.5 emission factor, central mixer loading	0.00072 lb/ton of aggregate, sand, cement, supplement, and moisture (AP-42, Table 11.12-3)
PM10 emission factor, cement unloading into silo	0.00034 lb/ton of cement (AP-42, Table 11.12-1)
PM2.5 emission factor, cement unloading into silo	0.000051 lb/ton of cement (AP-42, Table 11.12-3)
PM10 emission factor, supplement unloading into silo	0.0049 lb/ton of cement supplement (AP-42, Table 11.12-1)
PM2.5 emission factor, supplement unloading into silo	0.00074 lb/ton of cement supplement (AP-42, Table 11.12-3)
PM10 emissions (plant-wide)	3.4094 lb/hr
PM2.5 emissions (plant-wide)	0.5114 lb/hr (based on PM10 rate and ration of particle size multipliers from AP-42, Section 13.2.4.3)
PM10 emissions, plant-wide	0.01004 lb of fugitive dust per ton of concrete (controlled)
PM2.5 emissions, plant-wide	0.001511 lb of fugitive dust per ton of concrete (controlled)

Source: Based on AP-42 methodology and parameters contained in the Final EIR from the Bradley West Project.

Project Component	S.F.	S.Y.	C.Y.	Tons	PM10 (lb)	PM2.5 (lb)
Construct Taxilane C12	271,755	30,195	12,591	24,868	250	38
Construct Taxiway C14	533,159	59,240	24,703	48,788	490	74
Construct MSC Apron (North)	1,538,034	170,893	71,262	140,743	1,413	213

Pavement depth: 15 in. = 1.25 ft. = 0.417 yd.

Compilation and Application of Fugitive Dust Emission Factors to Construction Equipment

Off-Road Equipment	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)
Backhoe	0.007	0.001
Concrete Batch Plant	0.000	0.000
Compactor	0.294	0.161
Air Compressor	0.000	0.000
Sheep's Foot Compactor	0.294	0.161
Concrete Drill	0.000	0.000
Concrete Pump Truck with Boom	0.000	0.000
Crane	0.000	0.000
Crusher	0.133	0.016
Bulldozer D10	0.294	0.161
Bulldozer D9	0.294	0.161
Dump Truck 13 CY	0.064	0.005
Excavator	0.006	0.001
Fork Lift	0.000	0.000
Generator	0.000	0.000
Motor Grader 14H	0.000	0.000
Scissor Lift	0.000	0.000
Loader 966	0.012	0.002
Loader 988	0.436	0.044
Concrete Paver - Bidwell	0.000	0.000
Asphalt Paver, 7 CY Hopper	0.000	0.000
Concrete Saw	0.000	0.000
Scraper 631	0.545	0.083
Water Stand	0.000	0.000
Welder	0.000	0.000
Welder/Generator Truck Mount	0.000	0.000

Fugitive Dust Emission Factors for On-Road Off-Site Vehicles

	PM ₁₀ lb/mi	PM _{2.5} lb/mi
Employee vehicle	0.0007	0.0002
Haul truck	0.0064	0.0016

On-Road Equipment	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)
Flatbed Truck	0.0643	0.0046
Haul Truck - 26 CY	0.0643	0.0046
Water Truck	0.0643	0.0046
Pickup Truck 1/2 Ton	0.0643	0.0046
Transit Mixer Truck 10 CY	0.0643	0.0046
End Dump Truck - 15 CY	0.0643	0.0046

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHGs – Construction Emissions Summary

LAX MSC North Project Draft EIR
Greenhouse Gases - Construction Emissions Summary

Carbon Dioxide Equivalent (CO _{2e})						
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)	Emissions (tons/yr)
2014	Jul	3	738,170	23	32,094	18,487.65
	Aug		6,383,433	21	303,973	
	Sep		7,858,853	22	357,221	
	Oct	4	8,284,004	23	360,174	
	Nov		6,837,659	20	341,883	
	Dec		6,873,180	23	298,834	
2015	Jan	1	5,278,626	22	239,938	24,156.59
	Feb		4,431,950	20	221,597	
	Mar		3,644,850	22	165,675	
	Apr	2	3,667,509	22	166,705	
	May		3,383,151	21	161,102	
	Jun		3,564,635	22	162,029	
	Jul	3	3,494,884	23	151,951	
	Aug		4,743,253	21	225,869	
	Sep		4,752,956	22	216,043	
	Oct	4	4,397,870	22	199,903	
2016	Nov		3,136,451	21	149,355	33,680.29
	Dec		3,817,047	23	165,959	
	Jan	1	4,078,846	21	194,231	
	Feb		3,952,950	20	197,648	
	Mar		3,736,225	23	162,445	
	Apr	2	2,983,839	21	142,088	
	May		2,807,902	22	127,632	
	Jun		-	22	-	
	Jul	3	5,035,685	21	239,795	
	Aug		7,540,820	23	327,862	
2017	Sep		9,614,564	22	437,026	38,767.53
	Oct	4	9,155,317	21	435,967	
	Nov		9,591,285	22	435,967	
	Dec		8,863,143	22	402,870	
	Jan	1	8,822,029	22	401,001	
	Feb		8,819,286	20	440,964	
	Mar		8,948,301	23	389,057	
	Apr	2	7,326,939	20	366,347	
	May		6,843,446	23	297,541	
	Jun		6,140,342	22	279,106	
2018	Jul	3	6,160,245	21	293,345	40,450.81
	Aug		6,459,400	23	280,843	
	Sep		4,364,739	21	207,845	
	Oct	4	4,616,901	22	209,859	
	Nov		4,702,529	22	213,751	
	Dec		4,330,907	21	206,234	
	Jan	1	4,542,684	23	197,508	
	Feb		3,950,160	20	197,508	
	Mar		4,345,176	22	197,508	
	Apr	2	5,803,927	21	276,377	
2019	May		6,975,965	23	303,303	10,304.41
	Jun		5,774,959	21	274,998	
	Jul	3	8,052,227	22	366,010	
	Aug		8,379,957	23	364,346	
	Sep		7,614,536	20	380,727	
	Oct	4	9,269,178	23	403,008	
	Nov		8,192,127	22	372,369	
	Dec		8,000,726	21	380,987	
	Jan	1	8,058,087	23	350,352	
	Feb		6,241,535	20	312,077	
2019	Mar		5,591,770	21	266,275	10,304.41
	Apr	2	618,617	22	28,119	
	May		68,080	23	2,960	
	Jun		30,733	20	1,537	

CO _{2e} Emissions (metric tons per year)						
2014	2015	2016	2017	2018	2018	Proect Total
16,772	21,914	30,554	35,169	36,696	9,348	150,454

30-year amortization --> 5,015

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = short tons per year.
 Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHGs – On-Site Equipment Emission Factors

LAX MSC North Project Draft EIR
Greenhouse Gases - On-Site Equipment Emission Factors

Off-Road On-Site Equipment	OFFROAD2007 Category	OFFROAD2007 Emission Factor (lb/hp-hr) - CO _{2e} ¹						Fully Loaded Emission Factor (lb/hr) - CO _{2e} ²					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Backhoe	Tractors/Loaders/Backhoes	1.2550	1.2549	1.2547	1.2546	1.2545	1.2543	47.7902	47.7840	47.7781	47.7726	47.7675	47.7629
Concrete Batch Plant	Cement and Mortar Mixers	-----	-----	-----	-----	-----	-----	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Compactor	Rollers	1.2555	1.2553	1.2552	1.2550	1.2549	1.2547	56.9189	56.9116	56.9045	56.8976	56.8910	56.8847
Air Compressor	Air Compressors	1.2567	1.2564	1.2560	1.2557	1.2554	1.2552	34.8027	34.7933	34.7840	34.7754	34.7672	34.7596
Sheep's Foot Compactor	Rollers	1.2555	1.2553	1.2552	1.2550	1.2549	1.2547	56.9189	56.9116	56.9045	56.8976	56.8910	56.8847
Concrete Drill	Concrete/Industrial Saws	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Concrete Pump Truck with Boom	Other Construction Equipment	1.2542	1.2541	1.2540	1.2540	1.2539	1.2539	186.6859	186.6763	186.6671	186.6584	186.6503	186.6425
Crane	Cranes	1.2550	1.2548	1.2547	1.2546	1.2546	1.2545	60.2590	60.2534	60.2484	60.2438	60.2394	60.2351
Crusher	Crushing/Proc. Equipment	1.2554	1.2552	1.2550	1.2548	1.2547	1.2545	73.0116	72.9994	72.9877	72.9768	72.9667	72.9587
Bulldozer D10	Rubber Tired Dozers	1.2556	1.2555	1.2554	1.2553	1.2552	1.2551	235.7693	235.7459	235.7226	235.7003	235.6785	235.6576
Bulldozer D9	Rubber Tired Dozers	1.2556	1.2555	1.2554	1.2553	1.2552	1.2550	167.5196	167.5029	167.4864	167.4704	167.4549	167.4402
Dump Truck 13 CY	Off-Highway Trucks	1.2547	1.2546	1.2545	1.2544	1.2543	1.2543	103.8191	103.8114	103.8039	103.7965	103.7896	103.7832
Excavator	Excavators	1.2547	1.2546	1.2545	1.2544	1.2543	1.2542	88.6430	88.6364	88.6297	88.6232	88.6170	88.6111
Fork Lift	Forklifts	1.2559	1.2555	1.2553	1.2551	1.2549	1.2547	16.8284	16.8239	16.8206	16.8180	16.8156	16.8135
Generator	Generator Sets	1.2541	1.2540	1.2539	1.2539	1.2538	1.2537	325.1653	325.1412	325.1186	325.0988	325.0823	325.0681
Motor Grader 14H	Graders	1.2548	1.2547	1.2546	1.2545	1.2544	1.2543	91.8852	91.8771	91.8694	91.8623	91.8557	91.8497
Scissor Lift	Aerial Lifts	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Loader 966	Rubber Tired Loaders	1.2548	1.2547	1.2546	1.2545	1.2544	1.2543	83.2293	83.2222	83.2156	83.2096	83.2040	83.1986
Loader 988	Rubber Tired Loaders	1.2547	1.2546	1.2545	1.2544	1.2543	1.2543	151.3119	151.3008	151.2905	151.2810	151.2720	151.2635
Concrete Paver - Bidwell	Pavers	1.2551	1.2550	1.2549	1.2548	1.2547	1.2546	199.8563	199.8392	199.8225	199.8067	199.7917	199.7773
Asphalt Paver, 7 CY Hopper	Pavers	1.2553	1.2552	1.2550	1.2549	1.2548	1.2547	86.9075	86.8986	86.8902	86.8822	86.8746	86.8675
Concrete Saw	Concrete/Industrial Saws	1.2558	1.2558	1.2558	1.2558	1.2558	1.2558	8.6940	8.6940	8.6940	8.6940	8.6940	8.6940
Scraper 631	Scrapers	1.2551	1.2550	1.2549	1.2548	1.2547	1.2546	227.0523	227.0323	227.0128	226.9939	226.9756	226.9586
Water Stand	Other Construction Equipment	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Welder	Welders	1.2610	1.2602	1.2594	1.2587	1.2580	1.2574	20.0797	20.0671	20.0550	20.0435	20.0325	20.0220
Welder/Generator Truck Mount	Welders	1.2565	1.2562	1.2559	1.2556	1.2553	1.2550	23.0527	23.0468	23.0409	23.0355	23.0304	23.0255
On-Road On-Site Equipment	EMFAC2011 Category	EMFAC2011 Emission Factor (g/hr) - CO _{2e} ³						Fully Loaded Emission Factor (lb/hr) - CO _{2e} ⁴					
		2014	2015	2016	2017	2018	2019	2014	2015	2016	2017	2018	2019
Flatbed Truck	T7 single construction	50,959.02	50,446.13	49,932.79	49,162.62	48,392.43	47,621.15	112.3454	111.2147	110.0830	108.3850	106.6870	104.9867
Haul Truck	T7 single construction	50,959.02	50,446.13	49,932.79	49,162.62	48,392.43	47,621.15	112.3454	111.2147	110.0830	108.3850	106.6870	104.9867
Water Truck	T7 single construction	50,959.02	50,446.13	49,932.79	49,162.62	48,392.43	47,621.15	93.6212	92.6789	91.7358	90.3209	88.9059	87.4889
Pickup Truck	LHD2 (light-heavy-duty truck)	70,152.94	69,416.59	68,684.13	67,597.79	66,512.17	65,430.05	93.6212	92.6789	91.7358	90.3209	88.9059	87.4889
Transit Mixer Truck 10 CY	T7 single construction	50,959.02	50,446.13	49,932.79	49,162.62	48,392.43	47,621.15	112.3454	111.2147	110.0830	108.3850	106.6870	104.9867
End Dump Truck	T7 single construction	50,959.02	50,446.13	49,932.79	49,162.62	48,392.43	47,621.15	112.3454	111.2147	110.0830	108.3850	106.6870	104.9867

Notes:

CO_{2e} = carbon dioxide equivalent; lb/hp-hr = pounds per horsepower-hour; lb/hr = pounds per hour; g/hr = grams per hour.

¹ Emission factors as derived from OFFROAD2007. OFFROAD2007 provides emission factors for carbon dioxide (CO₂) and methane (CH₄). The CO_{2e} emission factor was calculated by adding the CO₂ emission factor to the product of the CH₄ emission factor and its global warming potential factor of 21.

² Fully loaded emission factors derived by multiplying OFFROAD2007 emission factor by equipment horsepower, load factor, and efficiency factor.

³ CO₂ emission factors obtained from EMFAC2011 and used in this analysis assume Pavley-I and Low Carbon Fuel Standard (LCFS) benefits. Emission factors for CH₄ and nitrous oxide (N₂O) were derived in accordance with CARB guidance. The emission factors for CO₂, CH₄, and N₂O include running and idling emissions for both gasoline and diesel vehicles. For gasoline vehicles, starting emissions are also included, as are evaporative emissions (diurnal, hot soak, running, resting) for the CH₄ emission factor. Factors were derived in g/mile and converted to g/hr assuming an on-site speed of 20 mph. An emission factor for CO_{2e} was calculated by adding the CO₂ emission factor to the product of the CH₄ emission factor and its global warming potential of 21, and to the product of the N₂O emission factor and its global warming potential of 310.

⁴ Fully loaded emission factors derived by converting EMFAC2011 emission factor to pounds and multiplying by efficiency factor.

Source: Ricondo & Associates, 2013; CARB OFFROAD2007; CARB EMFAC2011.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHGs – On-Site Equipment Emissions

LAX MSC North Project Draft EIR
Greenhouse Gases - On-Site Equipment Emissions

Carbon Dioxide Equivalent (CO _{2e}) -- Off-Road On-Site Emissions					
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)
2014	Jul	3	330,654	23	14,376
	Aug		3,402,042	21	162,002
	Sep		4,082,807	22	185,582
	Oct	4	4,577,731	23	199,032
	Nov		4,033,787	20	201,689
	Dec		3,904,828	23	169,775
2015	Jan	1	2,826,017	22	128,455
	Feb		2,455,578	20	122,779
	Mar		2,103,326	22	95,606
	Apr	2	1,984,722	22	90,215
	May		1,871,218	21	89,106
	Jun		2,010,664	22	91,394
	Jul	3	1,947,178	23	84,660
	Aug		2,961,080	21	141,004
	Sep		3,055,819	22	138,901
	Oct	4	2,788,331	22	126,742
	Nov		1,821,564	21	86,741
	Dec		2,297,136	23	99,875
2016	Jan	1	2,656,845	21	126,516
	Feb		2,513,815	20	125,691
	Mar		2,276,689	23	98,986
	Apr	2	1,801,155	21	85,769
	May		1,657,369	22	75,335
	Jun		-	22	-
	Jul	3	3,080,355	21	146,684
	Aug		4,567,501	23	198,587
	Sep		5,986,346	22	272,107
	Oct	4	5,714,239	21	272,107
	Nov		5,986,346	22	272,107
	Dec		5,471,708	22	248,714
2017	Jan	1	5,438,675	22	247,212
	Feb		5,612,558	20	280,628
	Mar		5,761,381	23	250,495
	Apr	2	4,746,232	20	237,312
	May		4,134,917	23	179,779
	Jun		3,608,685	22	164,031
	Jul	3	3,547,582	21	168,932
	Aug		3,765,881	23	163,734
	Sep		2,429,260	21	115,679
	Oct	4	2,544,939	22	115,679
	Nov		2,544,939	22	115,679
	Dec		2,372,778	21	112,989
2018	Jan	1	2,542,379	23	110,538
	Feb		2,210,764	20	110,538
	Mar		2,431,841	22	110,538
	Apr	2	2,903,233	21	138,249
	May		3,074,698	23	133,683
	Jun		2,436,180	21	116,009
	Jul	3	3,501,333	22	159,151
	Aug		3,660,484	23	159,151
	Sep		3,340,826	20	167,041
	Oct	4	3,939,140	23	171,267
	Nov		3,454,270	22	157,012
	Dec		3,299,568	21	157,122
2019	Jan	1	3,610,459	23	156,976
	Feb		2,859,341	20	142,967
	Mar		2,643,543	21	125,883
	Apr	2	73,217	22	3,328
	May		20,858	23	907
	Jun		15,643	20	782

Carbon Dioxide Equivalent (CO _{2e}) -- On-Road On-Site Emissions					
Year	Month	Quarter	Emissions (lb/month)	Workdays ¹	Emissions (lb/day)
2014	Jul	3	285,679	23	12,421
	Aug		1,955,247	21	93,107
	Sep		2,405,724	22	109,351
	Oct	4	2,325,602	23	101,113
	Nov		1,618,827	20	80,941
	Dec		1,675,720	23	72,857
2015	Jan	1	1,470,912	22	66,860
	Feb		1,247,040	20	62,352
	Mar		843,703	22	38,350
	Apr	2	935,289	22	42,513
	May		810,327	21	38,587
	Jun		848,797	22	38,582
	Jul	3	831,364	23	36,146
	Aug		1,038,233	21	49,440
	Sep		1,003,021	22	45,592
	Oct	4	973,638	22	44,256
	Nov		820,121	21	39,053
	Dec		947,084	23	41,178
2016	Jan	1	855,639	21	40,745
	Feb		866,250	20	43,313
	Mar		911,770	23	39,642
	Apr	2	748,499	21	35,643
	May		738,110	22	33,550
	Jun		-	22	-
	Jul	3	1,514,426	21	72,116
	Aug		1,756,914	23	76,388
	Sep		1,777,437	22	80,793
	Oct	4	1,680,456	21	80,022
	Nov		1,760,477	22	80,022
	Dec		1,760,477	22	80,022
2017	Jan	1	1,916,298	22	87,104
	Feb		1,742,089	20	87,104
	Mar		2,003,403	23	87,104
	Apr	2	1,742,089	20	87,104
	May		2,003,403	23	87,104
	Jun		1,922,259	22	87,375
	Jul	3	1,954,377	21	93,066
	Aug		2,057,053	23	89,437
	Sep		1,512,713	21	72,034
	Oct	4	1,592,411	22	72,382
	Nov		1,595,988	22	72,545
	Dec		1,457,871	21	69,422
2018	Jan	1	1,506,885	23	65,517
	Feb		1,310,335	20	65,517
	Mar		1,441,368	22	65,517
	Apr	2	1,948,783	21	92,799
	May		2,658,266	23	115,577
	Jun		2,337,834	21	111,325
	Jul	3	2,991,497	22	135,977
	Aug		3,094,837	23	134,558
	Sep		2,745,641	20	137,282
	Oct	4	3,473,104	23	151,005
	Nov		3,102,549	22	141,025
	Dec		2,905,430	21	138,354
2019	Jan	1	2,765,021	23	120,218
	Feb		2,091,136	20	104,557
	Mar		1,865,015	21	88,810
	Apr	2	337,474	22	15,340
	May		23,080	23	1,003
	Jun		-	20	-

Notes:

lb/month = pounds per month; lb/day = pounds per day; tons/yr = tons per year.

Shaded cells represent maximum daily emissions.

¹ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013, based on sources and methodologies depicted in previous tables in this section.

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHGs – Construction Worker Vehicle Emissions

LAX MSC North Project Draft EIR
Greenhouse Gases - Construction Worker Vehicle Emissions

Carbon Dioxide Equivalent (CO _{2e})								
Year	Month	Quarter	# of Workers	Worker Vehicles ¹	Worker VMT ²	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	970	843	33,739	117,456	23	5,107
	Aug		8,222	7,150	285,983	995,592	21	47,409
	Sep		10,564	9,186	367,443	1,279,182	22	58,145
	Oct	4	10,566	9,188	367,513	1,279,424	23	55,627
	Nov		8,690	7,557	302,261	1,052,262	20	52,613
	Dec		9,378	8,155	326,191	1,135,571	23	49,373
2015	Jan	1	7,680	6,678	267,130	897,796	22	40,809
	Feb		6,000	5,217	208,696	701,403	20	35,070
	Mar		5,244	4,560	182,400	613,026	22	27,865
	Apr	2	6,096	5,301	212,035	712,626	22	32,392
	May		5,678	4,937	197,496	663,761	21	31,608
	Jun		5,928	5,155	206,191	692,986	22	31,499
	Jul	3	6,010	5,226	209,043	702,572	23	30,547
	Aug		6,036	5,249	209,948	705,612	21	33,601
	Sep		5,632	4,897	195,896	658,384	22	29,927
	Oct	4	5,312	4,619	184,765	620,976	22	28,226
	Nov		4,126	3,588	143,513	482,332	21	22,968
	Dec		4,782	4,158	166,330	559,018	23	24,305
2016	Jan	1	4,894	4,256	170,226	552,343	21	26,302
	Feb		4,972	4,323	172,939	561,146	20	28,057
	Mar		4,734	4,117	164,661	534,285	23	23,230
	Apr	2	3,738	3,250	130,017	421,875	21	20,089
	May		3,540	3,078	123,130	399,529	22	18,160
	Jun		-	-	-	-	22	-
	Jul	3	3,664	3,186	127,443	413,524	21	19,692
	Aug		5,198	4,520	180,800	586,653	23	25,507
	Sep		7,316	6,362	254,470	825,693	22	37,531
	Oct	4	6,930	6,026	241,043	782,128	21	37,244
	Nov		7,260	6,313	252,522	819,373	22	37,244
	Dec		6,560	5,704	228,174	740,370	22	33,653
2017	Jan	1	7,140	6,209	248,348	774,926	22	35,224
	Feb		7,400	6,435	257,391	803,144	20	40,157
	Mar		7,870	6,843	273,739	854,155	23	37,137
	Apr	2	6,600	5,739	229,565	716,318	20	35,816
	May		5,790	5,035	201,391	628,406	23	27,322
	Jun		5,090	4,426	177,043	552,433	22	25,111
	Jul	3	5,460	4,748	189,913	592,590	21	28,219
	Aug		5,532	4,810	192,417	600,405	23	26,105
	Sep		3,786	3,292	131,687	410,906	21	19,567
	Oct	4	4,304	3,743	149,704	467,126	22	21,233
	Nov		5,060	4,400	176,000	549,177	22	24,963
	Dec		4,500	3,913	156,522	488,399	21	23,257
2018	Jan	1	4,600	4,000	160,000	480,634	23	20,897
	Feb		4,000	3,478	139,130	417,942	20	20,897
	Mar		4,400	3,826	153,043	459,737	22	20,897
	Apr	2	9,020	7,843	313,739	942,460	21	44,879
	May		11,774	10,238	409,530	1,230,213	23	53,488
	Jun		9,468	8,233	329,322	989,270	21	47,108
	Jul	3	12,100	10,522	420,870	1,264,276	22	57,467
	Aug		12,596	10,953	438,122	1,316,101	23	57,222
	Sep		11,700	10,174	406,957	1,222,482	20	61,124
	Oct	4	14,130	12,287	491,478	1,476,382	23	64,191
	Nov		12,848	11,172	446,887	1,342,431	22	61,020
	Dec		11,934	10,377	415,096	1,246,931	21	59,378
2019	Jan	1	10,932	9,506	380,243	1,099,710	23	47,813
	Feb		8,032	6,984	279,374	807,983	20	40,399
	Mar		7,126	6,197	247,861	716,844	21	34,135
	Apr	2	1,220	1,061	42,435	122,727	22	5,578
	May		240	209	8,348	24,143	23	1,050
	Jun		150	130	5,217	15,089	20	754

Notes:

- lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile;
- lb/mi = pounds per mile; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide.
- ¹ Assumes an occupancy factor of 1.15 workers per vehicle.
- ² Vehicle miles traveled (VMT) equals the number of vehicles multiplied by an assumed roundtrip distance of 40 miles.
- ³ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013; CARB EMFAC2011.

Carbon Dioxide Equivalent (CO _{2e})
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Roundtrip distance: 40 miles
Fleet mix: 50% LDA, 30% LDT1, 20% LDT2
CO₂ emissions assume Pavley-I and Low Carbon
Fuel Standard benefits

EMFAC2011 Category: LDA (gasoline)

Year	Emission Factors (g/mi)			
	CO ₂	CH ₄	N ₂ O	CO _{2e}
2014	1385.0321	0.0226	0.0147	1390.0622
2015	1331.3003	0.0199	0.0132	1335.8034
2016	1279.4344	0.0177	0.0119	1283.4971
2017	1225.0303	0.0157	0.0108	1228.7115
2018	1174.5891	0.0139	0.0099	1177.9556
2019	1126.5356	0.0126	0.0092	1129.6539

EMFAC2011 Category: LDT1 (gasoline)

Year	Emission Factors (g/mi)			
	CO ₂	CH ₄	N ₂ O	CO _{2e}
2014	1624.1864	0.0567	0.0421	1638.4297
2015	1572.7589	0.0516	0.0389	1585.9164
2016	1523.5997	0.0470	0.0359	1535.7208
2017	1469.9510	0.0429	0.0331	1481.1231
2018	1419.4972	0.0392	0.0306	1429.8042
2019	1370.5068	0.0365	0.0283	1380.0422

EMFAC2011 Category: LDT2 (gasoline)

Year	Emission Factors (g/mi)			
	CO ₂	CH ₄	N ₂ O	CO _{2e}
2014	1953.0926	0.0295	0.0289	1962.6619
2015	1895.4473	0.0268	0.0257	1903.9882
2016	1839.0783	0.0243	0.0228	1846.6705
2017	1776.5561	0.0219	0.0203	1783.3126
2018	1717.2328	0.0199	0.0181	1723.2742
2019	1659.5809	0.0183	0.0163	1665.0213

Year	Combined CO _{2e} Factor	
	(g/mi)	(lb/mi)
2014	1579.0924	3.4813
2015	1524.4742	3.3609
2016	1471.7989	3.2448
2017	1415.3552	3.1203
2018	1362.5739	3.0040
2019	1311.8439	2.8921

Methodology:

CO₂ emission factors generated directly by EMFAC2011.

Per CARB guidance, EMFAC2011-LDV was used to calculate CH₄.

Per CARB guidance, N₂O emissions equal 4.16% of NO_x for gasoline vehicles.

All emission factors account for emissions from start, running, and idle.

CO_{2e} emission factors calculated by adding the product of each emission factor and its global warming potential:

$$\text{CO}_2 = 1$$

$$\text{CH}_4 = 21$$

$$\text{N}_2\text{O} = 310$$

$$\text{CO}_{2e} = (\text{CO}_2 \times 1) + (\text{CH}_4 \times 21) + (\text{N}_2\text{O} \times 310)$$

Attachment B.1

Construction – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHGs – On-Road Off-Site Hauling Emissions

LAX MSC North Project Draft EIR
Greenhouse Gases - On-Road Off-Site Hauling Emissions

Carbon Dioxide Equivalent (CO _{2e})					
Year	Month	Quarter	Emissions (lb/month)	Workdays ³	Emissions (lb/day)
2014	Jul	3	4,381	23	190
	Aug		30,551	21	1,455
	Sep		91,141	22	4,143
	Oct	4	101,247	23	4,402
	Nov		132,784	20	6,639
	Dec		157,062	23	6,829
2015	Jan	1	83,902	22	3,814
	Feb		27,929	20	1,396
	Mar		84,794	22	3,854
	Apr	2	34,872	22	1,585
	May		37,844	21	1,802
	Jun		12,188	22	554
	Jul	3	13,770	23	599
	Aug		38,328	21	1,825
	Sep		35,731	22	1,624
	Oct	4	14,925	22	678
2016	Nov		12,435	21	592
	Dec		13,809	23	600
	Jan	1	14,018	21	668
	Feb		11,739	20	587
	Mar		13,481	23	586
	Apr	2	12,309	21	586
	May		12,895	22	586
	Jun		-	22	-
	Jul	3	27,381	21	1,304
	Aug		629,752	23	27,381
	Sep		1,025,089	22	46,595
	Oct	4	978,494	21	46,595
	Nov		1,025,089	22	46,595
	Dec		890,588	22	40,481
2017	Jan	1	692,131	22	31,460
	Feb		661,495	20	33,075
	Mar		329,363	23	14,320
	Apr	2	122,300	20	6,115
	May		76,720	23	3,336
	Jun		56,964	22	2,589
	Jul	3	65,696	21	3,128
	Aug		36,062	23	1,568
	Sep		11,860	21	565
	Oct	4	12,424	22	565
	Nov		12,424	22	565
	Dec		11,860	21	565
2018	Jan	1	12,786	23	556
	Feb		11,119	20	556
	Mar		12,231	22	556
	Apr	2	9,451	21	450
	May		12,786	23	556
	Jun		11,675	21	556
	Jul	3	295,121	22	13,415
	Aug		308,536	23	13,415
	Sep		305,588	20	15,279
	Oct	4	380,553	23	16,546
2019	Nov		292,876	22	13,313
	Dec		548,797	21	26,133
	Jan	1	582,896	23	25,343
	Feb		483,075	20	24,154
	Mar		366,369	21	17,446
	Apr	2	85,200	22	3,873
	May		-	23	-
	Jun		-	20	-

Carbon Dioxide Equivalent (CO _{2e})
Assumptions and Emission Factors

Assumptions:

Region: South Coast
Season: Max of annual, summer, winter
Speed: Aggregated
Travel distance: Varies by type of hauling trip (see Hauling Trip Data table)
Representative vehicles: Flatbed truck, haul truck, end dump truck, cement mixer
EMFAC2011 Category: T7 single construction (diesel)
Model Year: 2007 (compliance with LAX construction-related air quality control measures)
Idle Time: 10 minutes per trip
CO₂ emissions assume Pavley-I and Low Carbon Fuel Standard benefits

Year	CO ₂ Emission Factors		CH ₄ Emission Factors		N ₂ O	CO _{2e} Emission Factors	
	Running (g/mi)	Idle (g/trip)	Running (g/mi)	Idle (g/trip)		Running (g/mi)	Idle (g/trip)
2014	1727.8266	1223.5789	0.0116	0.0618	0.0585	1746.206	1224.877
2015	1712.2173	1211.1568	0.0121	0.0618	0.0586	1730.642	1212.455
2016	1694.6561	1198.7347	0.0125	0.0618	0.0587	1713.101	1200.033
2017	1668.3143	1180.1015	0.0130	0.0618	0.0587	1686.779	1181.399
2018	1641.9725	1161.4683	0.0134	0.0618	0.0587	1660.454	1162.766
2019	1610.6756	1142.8352	0.0137	0.0618	0.0586	1629.117	1144.133

Methodology:

CO₂ emission factors generated directly by EMFAC2011.
Per CARB guidance, CH₄ for heavy-duty vehicles is equal to 0.0408 x TOG
Per CARB guidance, the N₂O emission factor is 0.3316 grams/gal x gal/mile of the equipment
EMFAC2011 was used to derive a factor for N₂O using this methodology:

N ₂ O factor (g/gal) --> 0.3316				
Year	gal/day	VMT (mi/day)	gal/VMT	N ₂ O (g/mi)
2014	2,609.86	14,792.22	0.18	0.0585
2015	2,412.16	13,646.36	0.18	0.0586
2016	2,524.09	14,270.54	0.18	0.0587
2017	2,756.31	15,575.08	0.18	0.0587
2018	2,995.73	16,919.99	0.18	0.0587
2019	2,865.64	16,226.32	0.18	0.0586

Source: From EMFAC2011 assuming a T-7 single construction vehicle at aggregated speed.

CO_{2e} emission factors calculated by adding the product of each emission factor and its global warming potential:
CO₂ = 1
CH₄ = 21
N₂O = 310
CO_{2e} = (CO₂ x 1)+(CH₄ x 21)+(N₂O x 310)

Notes:

lb/month = pounds per month; lb/day = pounds per day; g/mi = grams per mile; lb/mi = pounds per mile; VMT = vehicle miles traveled; gal = gallon.
CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide
Shaded cells represent maximum daily emissions.

³ Workdays assume a 5-day-per-week workweek.

Source: Ricondo & Associates, 2013; Connico, Inc., 2013; CARB EMFAC2011.

Attachment B.2

Construction – Localized Significance Thresholds (LST) Dispersion Modeling

- Peak Month Emission Rates for Each Construction Component
 - CO
 - NO_x
 - SO₂
 - PM₁₀
 - PM_{2.5}
- Peak Year Temporal Factors (by month) for Each Construction Component
 - CO
 - NO_x
 - SO₂
 - PM₁₀
 - PM_{2.5}
- Receptor Locations
- Dispersion Result Summaries
 - CO
 - NO₂
 - SO₂
 - PM₁₀
 - PM_{2.5}

Attachment B.2

Construction – Localized Significance Thresholds (LST) Dispersion Modeling

- Peak Month Emission Rates for Each Construction Component
 - CO
 - NO_x
 - SO₂
 - PM₁₀
 - PM_{2.5}

Emissions Source	2014 (lb/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	125	214	214	249	246
ElectricVault	0	0	0	0	0	0	24	143	121	101	44	4
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	216	216	181	89	16
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	29	209	157	157	113	30
NG_regulator (Electrical Substation)	0	0	0	0	0	9	70	70	70	70	70	70
RoadReconfig	0	0	0	0	0	0	16	111	135	199	199	143
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	14	61	83	89	121	131
TWYC14_SOUTH	0	0	0	0	0	0	14	61	83	89	121	131
MSC-N-CONC	0	0	0	0	0	0	0	29	134	134	169	249
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	108	1026	1213	1235	1175	1017

Emissions Source	2015 (lb/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	14
US_maintenance	160	147	160	196	196	196	196	120	90	89	20	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	84	89	95	10	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	16	120	120	78	3	0
AircraftParking_runW	0	0	0	0	0	0	2	19	19	12	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	85	96	26	0	0	0	0	0	0	0	0	0
RoadReconfig	83	83	82	23	1	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	92	63	2	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	92	63	2	0	0	0	0	0	0	0	0	0
MSC-N-CONC	231	231	231	231	231	231	257	433	433	433	433	433
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	745	682	504	533	517	522	482	693	662	613	457	507

Emissions Source	2016 (lb/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	84	107	59	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	76	66	4	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	401	401	401	359	359	0	483	488	786	783	783	693
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	127	325	325	325	325	325
Total	562	575	465	401	359	0	611	813	1111	1107	1107	1018

Emissions Source	2017 (lb/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	600	715	715	715	517	464	524	524	524	534	550	517
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	379	379	266	217	217	217	217	180	3	0	0	0
Total	979	1094	982	932	734	681	741	705	527	534	550	517

Emissions Source	2018 (lb/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	64	73	114	110	146	138	37	18
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	15	75	116	172
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	449	449	449	665	664	578	578	578	578	578	578	557
MSC-N-APRON	0	0	0	0	0	5	182	182	182	182	167	163
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	449	449	449	665	728	655	874	870	921	973	898	910

Emissions Source	2019 (lb/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	164	81	8	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	466	446	446	34	3	0	0	0	0	0	0	0
MSC-N-APRON	154	162	125	28	8	7	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	784	689	579	62	11	7	0	0	0	0	0	0

Dispersion Source Name	ID	Source Type	2014	2015	2016	2017	2018	2019	Max Year	Max	# of	Max g/s
			Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	(lb/day)	(grams/sec)	Sources	per Source
AA_maintenance	E1	Volume	0	60	107	0	0	0	0	0.0000	9	0.0000
AA_leaseholdPark	E2	Volume	0	14	76	0	0	0	0	0.0000	9	0.0000
US_maintenance	E3	Volume	249	196	0	0	0	0	0	0.0000	9	0.0000
ElectricVault	E4	Volume	143	0	0	0	0	0	0	0.0000	3	0.0000
CoastGuard	E5	Volume	0	95	0	0	0	0	0	0.0000	17	0.0000
WaterTankPump	E6	Volume	216	0	0	0	0	0	0	0.0000	4	0.0000
AircraftParking_runE	E7A	Volume	0	120	0	0	0	0	0	0.0000	33	0.0000
AircraftParking_runW	E7B	Volume	0	129	0	0	0	0	0	0.0000	3	0.0000
Navaid	E8	Volume	209	3	0	0	0	0	0	0.0000	1	0.0000
NG_regulator (Electrical Substation)	E10	Volume	70	96	0	0	0	0	0	0.0000	1	0.0000
RoadRecoiling	E11	Volume	199	83	0	0	0	0	0	0.0000	1	0.0000
TWYC12	0	TWYC12_C	0	0	0	146	0	0	0	0.0000	95	0.0000
TWYC14_CENTRAL	0	TWYC14_C	0	0	0	172	164	0	0	0.0000	35	0.0000
TWYC14-NORTH	0	TWYC14_N	131	92	0	0	0	0	0	0.0000	96	0.0000
TWYC14_SOUTH	0	TWYC14_S	131	92	0	0	0	0	0	0.0000	101	0.0000
MSC-H-CONC	0	CONC	249	433	786	715	665	466	715	5.6314	31	0.1817
465C-APRON	0	APRON	0	0	0	182	162	0	0	0.0000	27	0.0000
TUNNEL	0	TUNNEL	0	0	325	379	0	0	379	2.9852	27	0.1100

Emissions Source	2014 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	152	248	248	252	245
ElectricVault	0	0	0	0	0	0	24	129	102	96	51	1
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	188	188	168	121	11
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	25	178	115	115	103	39
NG_regulator (Electrical Substation)	0	0	0	0	0	9	72	72	72	72	72	72
RoadReconfig	0	0	0	0	0	0	21	138	166	243	243	173
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	7	32	32	52	58	88	97
TWYC14_SOUTH	0	0	0	0	0	7	32	52	58	88	88	97
MSC-N-CONC	0	0	0	0	0	0	22	89	89	138	138	254
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	55	544	1084	1147	1156	585

Emissions Source	2015 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	12
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	5
US_maintenance	36	27	29	32	32	32	32	24	19	17	2	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	15	20	16	1	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	3	26	25	18	0	0
AircraftParking_runW	0	0	0	0	0	0	1	4	4	3	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	18	19	5	0	0	0	0	0	0	0	0	0
RoadReconfig	50	50	39	13	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	27	21	1	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	27	21	1	0	0	0	0	0	0	0	0	0
MSC-N-CONC	41	41	41	41	41	41	47	82	82	82	82	82
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	199	180	115	101	93	90	84	135	130	119	85	99

Emissions Source	2016 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	17	20	12	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	16	14	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	81	81	81	81	74	0	113	113	232	231	231	194
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	34	167	167	167	167	167
Total	114	114	93	81	74	0	147	280	398	398	398	361

Emissions Source	2017 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	144	169	169	169	125	115	150	150	150	151	152	134
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	201	201	110	70	70	70	70	50	0	0	0	0
Total	345	370	279	239	195	184	220	200	150	151	152	134

Emissions Source	2018 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	35	41	48	45	56	58	14	10
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	11	36	43	61
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	116	116	116	159	153	130	130	130	130	130	130	128
MSC-N-APRON	0	0	0	0	0	3	104	104	104	104	99	141
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	116	116	116	159	188	175	283	280	302	328	287	340

Emissions Source	2019 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	60	34	2	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	119	117	117	5	0	0	0	0	0	0	0	0
MSC-N-APRON	141	142	113	25	2	2	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	321	293	232	31	3	2	0	0	0	0	0	0

Dispersion Source Name	ID	Source Type	2014	2015	2016	2017	2018	2019	Max Year	Max	# of	Max g/s
			Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	(lb/day)	(grams/sec)	Sources	per Source
AA_maintenance	E1	Volume	0	12	20	0	0	0	0	0.0000	9	0.0000
AA_leaseholdPark	E2	Volume	0	5	16	0	0	0	0	0.0000	9	0.0000
US_maintenance	E3	Volume	252	36	0	0	0	0	252	1.9806	9	0.2201
ElectricVault	E4	Volume	129	0	0	0	0	0	129	1.0198	3	0.3399
CoastGuard	E5	Volume	0	20	0	0	0	0	0	0.0000	17	0.0000
WaterTankPump	E6	Volume	188	0	0	0	0	0	188	1.4771	4	0.3693
AircraftParking_eotE	E7A	Volume	0	26	0	0	0	0	0	0.0000	33	0.0000
AircraftParking_rowW	E7B	Volume	0	4	0	0	0	0	0	0.0000	3	0.0000
Navaid	E8	Volume	178	0	0	0	0	0	178	1.3997	1	1.3997
NG_regulator (Electrical Substation)	E10	Volume	72	19	0	0	0	0	72	0.5690	1	0.5690
RoadRecofing	E11	Volume	243	50	0	0	0	0	243	1.9153	1	1.9153
TWYC12	TWYC12_C	Volume	0	0	0	0	0	0	0	0.0000	95	0.0000
TWYC14_CENTRAL	TWYC14_C	Volume	0	0	0	0	61	60	0	0.0000	35	0.0000
TWYC14-NORTH	TWYC14_N	Volume	97	27	0	0	0	0	97	0.7620	96	0.0079
TWYC14_SOUTH	TWYC14_S	Volume	97	27	0	0	0	0	97	0.7620	101	0.0075
CONC-COING	CONC	Volume	254	82	232	159	119	254	2.0066	3	0.0646	
TUNNEL-APRON	APRON	Volume	0	0	0	0	141	142	0	0.0000	68	0.0000
TUNNEL	TUNNEL	Volume	0	0	167	201	0	0	0	0.0000	27	0.0000

Emissions Source	2014 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	1	1	1	1
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	1	1	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	0	0	0	0	0	0	0	0	0	0	0	1
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	2	3	3	3	2

Emissions Source	2015 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	1	1	1	1	1	1	1	1	1	1	1	1
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	2	1	1	1	1	1	2	2	2	1	1

Emissions Source	2016 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	1	1	1	1	1	1	1	1	1	1	1	1
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	1	1	1	1	1
Total	2	2	1	1	1	0	2	3	4	4	4	3

Emissions Source	2017 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	2	2	2	2	2	1	2	2	2	2	2	2
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	1	1	1	1	1	1	1	1	0	0	0	0
Total	3	4	3	3	2	2	2	2	2	2	2	2

Emissions Source	2018 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	2	2	2	2	2	2	2	2	2	2	2	2
MSC-N-APRON	0	0	0	0	0	0	1	1	1	1	1	1
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	2	2	2	2	2	3	3	3	3	3	3

Emissions Source	2019 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WaterTankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	2	2	2	2	2	0	0	0	0	0	0	0
MSC-N-APRON	1	1	1	1	1	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	2	2	0	0	0	0	0	0	0	0	0

Dispersion Source Name	ID	Source Type	2014		2015		2016		2017		2018		2019		Max Year		# of Sources	Max g/s per Source
			Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)	Max (lb/day)		
AA_maintenance	E1	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	9	0.0000
AA_leaseholdPark	E2	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	9	0.0000
US_maintenance	E3	Volume	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	9	0.0000
ElectricVault	E4	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	3	0.0000
CoastGuard	E5	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	17	0.0000
WaterTankPump	E6	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	4	0.0000
AircraftParking_rowE	E7A	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	33	0.0000
AircraftParking_rowW	E7B	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	1	0.0000
Navaid	E8	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	1	0.0000
NG_regulator (Electrical Substation)	E10	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	1	0.0000
RoadReconfg	E11	Volume	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	1	0.0000
TWYC12	TWYC12	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	95	0.0000
TWYC14_CENTRAL	TWYC14_C	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	35	0.0000
TWYC14-NORTH	TWYC14_N	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	96	0.0000
TWYC14_SOUTH	TWYC14_S	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	101	0.0000
MSC-H-CONC	CONC	Volume	0	2	2	2	2	2	2	2	2	2	2	2	2	0.0181	31	0.0006
MSC-H-APRON	APRON	Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0000	68	0.0000
TUNNEL	TUNNEL	Volume	0	0	0	1	1	1	0	0	0	1	0.0114	27	0.0005			

Emissions Source	2014 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	29	49	49	52	50
ElectricVault	0	0	0	0	0	0	6	23	13	19	17	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	46	46	43	38	4
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	6	40	16	16	22	14
NG_regulator (Electrical Substation)	0	0	0	0	0	1	7	7	7	7	7	7
RoadReconfig	0	0	0	0	0	0	6	39	50	78	78	52
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWYC-14-NORTH	0	0	0	0	0	0	2	7	12	13	22	23
TWYC14_SOUTH	0	0	0	0	0	0	2	7	12	13	22	23
MSC-N-CONC	0	0	0	0	0	0	3	12	12	12	27	61
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	22	201	215	251	285	235

Emissions Source	2015 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	4
US_maintenance	12	9	10	13	13	13	28	32	32	3	3	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	27	24	31	1	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	4	29	29	20	0	0
AircraftParking_runW	0	0	0	0	0	0	1	4	5	3	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	20	29	8	0	0	0	0	0	0	0	0	0
RoadReconfig	25	25	18	4	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWYC-14-NORTH	13	8	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	13	8	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	53	53	53	53	53	53	55	67	67	67	67	67
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	136	132	90	97	90	96	73	128	132	122	70	91

Emissions Source	2016 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	31	36	22	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	32	27	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWYC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	67	67	67	67	52	0	36	37	178	177	177	133
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	13	130	130	130	130	130
Total	130	130	89	67	52	0	49	167	308	308	308	264

Emissions Source	2017 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWYC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	100	150	150	150	63	39	46	46	46	47	48	44
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	141	141	57	20	20	20	20	14	0	0	0	0
Total	241	292	207	170	83	59	66	60	46	47	48	44

Emissions Source	2018 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	10	12	21	21	30	33	7	3
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	3	13	22	39
TWYC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	41	41	41	69	65	58	58	58	58	58	58	55
MSC-N-APRON	0	0	0	0	0	1	70	70	70	70	74	89
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	41	41	41	69	75	71	149	148	161	173	161	187

Emissions Source	2019 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	36	16	1	0	0	0	0	0	0	0	0	0
TWYC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	48	45	45	6	1	0	0	0	0	0	0	0
MSC-N-APRON	88	90	69	23	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	172	151	115	30	1	0	0	0	0	0	0	0

Dispersion Source Name	ID	Source Type	2014	2015	2016	2017	2018	2019	Max Year	# of Sources	Max g/s	
			Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	(lb/day)		(grams/sec)	per Source
AA_maintenance	E1	Volume	0	20	36	0	0	0	36	0.2824	9	0.0314
AA_leaseholdPark	E2	Volume	0	4	32	0	0	0	32	0.2497	9	0.0277
US_maintenance	E3	Volume	52	32	0	0	0	0	0	0.0000	9	0.0000
ElectricVault	E4	Volume	23	0	0	0	0	0	0	0.0000	3	0.0000
CoastGuard	E5	Volume	0	31	0	0	0	0	0	0.0000	17	0.0000
WaterTankPump	E6	Volume	46	0	0	0	0	0	0	0.0000	4	0.0000
JetcraftParking_00E	E7A	Volume	0	5	0	0	0	0	0	0.0000	33	0.0000
AircraftParking_00W	E7B	Volume	0	29	0	0	0	0	0	0.0000	3	0.0000
Navaid	E8	Volume	40	0	0	0	0	0	0	0.0000	1	0.0000
NG_regulator (Electrical Substation)	E10	Volume	7	29	0	0	0	0	0	0.0000	1	0.0000
RoadReconfg	E11	Volume	78	25	0	0	0	0	0	0.0000	1	0.0000
FWY12	FWY12_C	Volume	0	0	0	0	39	36	0	0.0000	95	0.0000
FWY14_CENTRAL	FWY14_C	Volume	0	0	0	0	39	36	0	0.0000	35	0.0000
FWY14-NORTH	FWY14_N	Volume	23	13	0	0	0	0	0	0.0000	96	0.0000
FWY14_SOUTH	FWY14_S	Volume	23	13	0	0	0	0	0	0.0000	101	0.0000
MISC-COINC	COINC	Volume	61	178	150	88	48	178	150	0.0000	31	0.0000
MISC-APRON	APRON	Volume	0	0	0	0	89	90	0	0.0000	68	0.0000
TUNNEL	TUNNEL	Volume	0	0	130	141	0	0	130	1.0271	27	0.0380

Emissions Source	2014 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	12	20	20	21	20
ElectricVault	0	0	0	0	0	0	2	9	5	6	5	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	17	17	15	12	1
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	2	16	7	7	8	4
NG_regulator (Electrical Substation)	0	0	4	0	0	0	1	4	4	4	4	4
RoadReconfig	0	0	0	0	0	0	2	14	18	30	30	20
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	1	3	4	4	8	9
TWYC14_SOUTH	0	0	0	0	0	0	0	1	3	4	8	9
MSC-N-CONC	0	0	0	0	0	0	0	1	4	4	8	17
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	7	75	83	96	105	84

Emissions Source	2015 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	5
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	1
US_maintenance	3	2	2	3	3	3	3	7	7	8	1	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	7	6	8	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	1	6	6	5	0	0
AircraftParking_runW	0	0	0	0	0	0	1	1	1	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	4	6	2	0	0	0	0	0	0	0	0	0
RoadReconfig	7	7	4	1	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	3	1	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	3	1	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	10	10	10	10	10	10	10	12	12	12	12	12
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	30	28	18	20	18	20	14	26	27	26	13	18

Emissions Source	2016 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	8	9	6	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	8	7	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	12	12	12	12	10	0	6	6	43	43	31	31
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	3	30	30	30	30	30
Total	29	29	18	12	10	0	9	36	73	73	73	61

Emissions Source	2017 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	23	36	36	36	13	7	13	13	13	13	14	10
MSC-N-APRON	0	0	0	0	0	0	0	0	0	0	0	0
TUNNEL	35	35	15	7	7	7	7	4	0	0	0	0
Total	57	71	52	43	20	14	20	17	13	13	14	10

Emissions Source	2018 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	1	1	5	5	7	9	1	1
TWYC14_CENTRAL	0	0	0	0	0	0	0	0	0	2	5	12
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	7	7	7	14	12	10	10	10	10	10	10	9
MSC-N-APRON	0	0	0	0	0	0	16	16	16	16	15	20
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	7	7	14	13	11	31	31	34	37	31	42

Emissions Source	2019 (lbs/day)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AA_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
AA_leaseholdPark	0	0	0	0	0	0	0	0	0	0	0	0
US_maintenance	0	0	0	0	0	0	0	0	0	0	0	0
ElectricVault	0	0	0	0	0	0	0	0	0	0	0	0
CoastGuard	0	0	0	0	0	0	0	0	0	0	0	0
WatertankPump	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runE	0	0	0	0	0	0	0	0	0	0	0	0
AircraftParking_runW	0	0	0	0	0	0	0	0	0	0	0	0
Navaid	0	0	0	0	0	0	0	0	0	0	0	0
NG_regulator (Electrical Substation)	0	0	0	0	0	0	0	0	0	0	0	0
RoadReconfig	0	0	0	0	0	0	0	0	0	0	0	0
TWYC12	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_CENTRAL	10	3	0	0	0	0	0	0	0	0	0	0
TWTC-14-NORTH	0	0	0	0	0	0	0	0	0	0	0	0
TWYC14_SOUTH	0	0	0	0	0	0	0	0	0	0	0	0
MSC-N-CONC	8	8	8	1	0	0	0	0	0	0	0	0
MSC-N-APRON	20	20	12	3	0	0	0	0	0	0	0	0
TUNNEL	0	0	0	0	0	0	0	0	0	0	0	0
Total	38	32	21	4	0	0	0	0	0	0	0	0

Dispersion Source Name	ID	Source Type	2014	2015	2016	2017	2018	2019	Max Year	Max #	Max g/s	
			Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	Max lb/day	(lb/day)	(grams/sec)	of Sources	per Source
AA_maintenance	E1	Volume	0	5	9	0	0	0	0	0.0000	9	0.0000
AA_leaseholdPark	E2	Volume	0	1	8	0	0	0	0	0.0000	9	0.0000
US_maintenance	E3	Volume	21	8	0	0	0	0	21	0.1635	9	0.0182
ElectricVault	E4	Volume	9	0	0	0	0	0	9	0.0692	3	0.0231
CoastGuard	E5	Volume	0	8	0	0	0	0	0	0.0000	17	0.0000
WatertankPump	E6	Volume	17	0	0	0	0	17	0.1320	4	0.0330	
AirrcftParking_rose	E7A	Volume	0	0	0	0	0	0	0	0.0000	33	0.0000
AirrcftParking_rose	E7B	Volume	0	1	0	0	0	0	0	0.0000	3	0.0000
Navaid	E8	Volume	16	0	0	0	0	16	0.1247	1	0.1247	
NG_regulator (Electrical Substation)	E10	Volume	4	6	0	0	0	0	4	0.0321	1	0.0321
RoadReconing	E11	Volume	30	7	0	0	0	30	0.2389	1	0.2389	
TWYC12	TWYC12	Volume	0	0	0	0	0	0	0.0000	95	0.0000	
TWYC14_CENTRAL	TWYC14_C	Volume	0	0	0	0	12	10	0	0.0000	35	0.0000
TWYC14-NORTH	TWYC14_N	Volume	9	3	0	0	0	9	0.0680	96	0.0007	
TWYC14_SOUTH	TWYC14_S	Volume	9	3	0	0	0	9	0.0680	101	0.0007	
MISC-N-CONC	CONC	Volume	17	0	36	14	36	8	17	0.1378	31	0.0048
MISC-APRON	APRON	Volume	0	0	0	0	20	20	0	0.0000	68	0.0000
TUNNEL	TUNNEL	Volume	0	0	30	35	0	0	0	0.0000	27	0.0000

Attachment B.2

Construction – Localized Significance Thresholds (LST) Dispersion Modeling

- Peak Year Temporal Factors (by month) for Each Construction Component
 - CO
 - NO_x
 - SO₂
 - PM₁₀
 - PM_{2.5}

Attachment B.4

Equipment – Localized Significance Thresholds (LST) Dispersion Modeling

- Receptor Locations

MSC North Project Draft EIR
Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_1	Recreational	367379	755396	367379, 755396
Receptor_2	Recreational	367340	755485	367340, 755485
Receptor_3	Recreational	367301	755573	367301, 755573
Receptor_4	Recreational	367263	755661	367263, 755661
Receptor_5	Recreational	367224	755749	367224, 755749
Receptor_6	Recreational	367186	755838	367186, 755838
Receptor_7	Recreational	367147	755926	367147, 755926
Receptor_8	Recreational	367109	756014	367109, 756014
Receptor_9	Recreational	367070	756103	367070, 756103
Receptor_10	Recreational	367032	756191	367032, 756191
Receptor_11	Recreational	366993	756279	366993, 756279
Receptor_12	Recreational	366954	756367	366954, 756367
Receptor_13	Recreational	366916	756456	366916, 756456
Receptor_14	Recreational	366877	756544	366877, 756544
Receptor_15	Recreational	366839	756632	366839, 756632
Receptor_16	Recreational	366800	756720	366800, 756720
Receptor_17	Recreational	366762	756809	366762, 756809
Receptor_18	Recreational	366723	756897	366723, 756897
Receptor_19	Recreational	366685	756985	366685, 756985
Receptor_20	Recreational	366646	757074	366646, 757074
Receptor_21	Recreational	366607	757162	366607, 757162
Receptor_22	Recreational	366569	757250	366569, 757250
Receptor_23	Recreational	366530	757338	366530, 757338
Receptor_24	Recreational	366492	757427	366492, 757427
Receptor_25	Recreational	366453	757515	366453, 757515
Receptor_26	Recreational	366415	757603	366415, 757603
Receptor_27	Recreational	366376	757692	366376, 757692
Receptor_28	Residential	366338	757780	366338, 757780
Receptor_29	Residential	366402	757746	366402, 757746
Receptor_30	Residential	366467	757713	366467, 757713
Receptor_31	Residential	366531	757679	366531, 757679
Receptor_32	Residential	366567	757773	366567, 757773
Receptor_33	Residential	366625	757758	366625, 757758
Receptor_34	Residential	366682	757744	366682, 757744
Receptor_35	Residential	366768	757788	366768, 757788
Receptor_36	Residential	366854	757833	366854, 757833
Receptor_37	Residential	366941	757877	366941, 757877
Receptor_38	Residential	367027	757922	367027, 757922
Receptor_39	Residential	367113	757966	367113, 757966
Receptor_40	Residential	367192	757916	367192, 757916
Receptor_41	Residential	367264	757916	367264, 757916
Receptor_42	Residential	367335	757916	367335, 757916
Receptor_43	Residential	367343	757966	367343, 757966

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

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Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_44	Residential	367404	757995	367404, 757995
Receptor_45	Residential	367465	758024	367465, 758024
Receptor_46	School	367504	757948	367504, 757948
Receptor_47	School	367544	757873	367544, 757873
Receptor_48	School	367587	757909	367587, 757909
Receptor_49	School	367623	757866	367623, 757866
Receptor_50	School	367694	757866	367694, 757866
Receptor_51	School	367716	757927	367716, 757927
Receptor_52	School	367737	757988	367737, 757988
Receptor_53	School	367727	758067	367727, 758067
Receptor_54	School	367716	758146	367716, 758146
Receptor_55	Residential	367673	758189	367673, 758189
Receptor_56	School	367723	758254	367723, 758254
Receptor_57	School	367784	758221	367784, 758221
Receptor_58	School	367845	758189	367845, 758189
Receptor_59	Residential	367816	758096	367816, 758096
Receptor_60	Residential	367898	758066	367898, 758066
Receptor_61	Residential	367980	758035	367980, 758035
Receptor_62	Residential	368062	758005	368062, 758005
Receptor_63	Residential	368144	757975	368144, 757975
Receptor_64	Residential	368226	757945	368226, 757945
Receptor_65	Residential	368301	757943	368301, 757943
Receptor_66	Residential	368376	757941	368376, 757941
Receptor_67	Residential	368452	757940	368452, 757940
Receptor_68	Residential	368527	757938	368527, 757938
Receptor_69	Residential	368563	757880	368563, 757880
Receptor_70	Residential	368636	757926	368636, 757926
Receptor_71	Residential	368709	757971	368709, 757971
Receptor_72	Residential	368782	758017	368782, 758017
Receptor_73	Residential	368855	758062	368855, 758062
Receptor_74	Residential	368928	758108	368928, 758108
Receptor_75	Residential	369001	758153	369001, 758153
Receptor_76	Residential	369058	758074	369058, 758074
Receptor_77	Residential	369102	758103	369102, 758103
Receptor_78	Residential	369145	758132	369145, 758132
Receptor_79	Residential	369200	758065	369200, 758065
Receptor_80	Residential	369255	757998	369255, 757998
Receptor_81	Residential	369310	757931	369310, 757931
Receptor_82	Residential	369356	757981	369356, 757981
Receptor_83	Residential	369403	758031	369403, 758031
Receptor_84	Recreational	369336	758100	369336, 758100
Receptor_85	Recreational	369269	758170	369269, 758170
Receptor_86	Recreational	369202	758239	369202, 758239

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_87	Recreational	369264	758285	369264, 758285
Receptor_88	Recreational	369326	758330	369326, 758330
Receptor_89	Recreational	369389	758376	369389, 758376
Receptor_90	Recreational	369389	758462	369389, 758462
Receptor_91	Recreational	369389	758548	369389, 758548
Receptor_92	Residential	369389	758634	369389, 758634
Receptor_93	Residential	369469	758630	369469, 758630
Receptor_94	Residential	369549	758625	369549, 758625
Receptor_95	Residential	369630	758621	369630, 758621
Receptor_96	Residential	369710	758617	369710, 758617
Receptor_97	Residential	369791	758613	369791, 758613
Receptor_98	Residential	369791	758514	369791, 758514
Receptor_99	Residential	369791	758416	369791, 758416
Receptor_100	Residential	369791	758318	369791, 758318
Receptor_101	Residential	369881	758318	369881, 758318
Receptor_102	Residential	369972	758318	369972, 758318
Receptor_103	Residential	370062	758318	370062, 758318
Receptor_104	Residential	370153	758318	370153, 758318
Receptor_105	Residential	370243	758318	370243, 758318
Receptor_106	School	370247	758254	370247, 758254
Receptor_107	School	370250	758189	370250, 758189
Receptor_108	School	370308	758196	370308, 758196
Receptor_109	School	370361	758236	370361, 758236
Receptor_110	School	370415	758275	370415, 758275
Receptor_111	Residential	370408	758347	370408, 758347
Receptor_112	Residential	370490	758344	370490, 758344
Receptor_113	Residential	370572	758341	370572, 758341
Receptor_114	Residential	370654	758338	370654, 758338
Receptor_115	Residential	370735	758335	370735, 758335
Receptor_116	Residential	370817	758333	370817, 758333
Receptor_117	Offsite Worker	370814	758243	370814, 758243
Receptor_118	Offsite Worker	370810	758153	370810, 758153
Receptor_119	Offsite Worker	370807	758063	370807, 758063
Receptor_120	Offsite Worker	370803	757974	370803, 757974
Receptor_121	Offsite Worker	370835	757927	370835, 757927
Receptor_122	Offsite Worker	370868	757880	370868, 757880
Receptor_123	Offsite Worker	370921	757884	370921, 757884
Receptor_124	Offsite Worker	370975	757887	370975, 757887
Receptor_125	Offsite Worker	370975	757794	370975, 757794
Receptor_126	Offsite Worker	371026	757794	371026, 757794
Receptor_127	Offsite Worker	371076	757877	371076, 757877
Receptor_128	Offsite Worker	371126	757959	371126, 757959
Receptor_129	Offsite Worker	371119	758031	371119, 758031

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_130	Residential	371183	758027	371183, 758027
Receptor_131	Residential	371248	758024	371248, 758024
Receptor_132	Residential	371326	758075	371326, 758075
Receptor_133	Residential	371404	758127	371404, 758127
Receptor_134	Residential	371481	758178	371481, 758178
Receptor_135	Residential	371559	758230	371559, 758230
Receptor_136	Residential	371637	758281	371637, 758281
Receptor_137	Residential	371715	758333	371715, 758333
Receptor_138	Residential	371769	758261	371769, 758261
Receptor_139	Residential	371822	758189	371822, 758189
Receptor_140	Residential	371894	758160	371894, 758160
Receptor_141	Residential	371894	758081	371894, 758081
Receptor_142	Residential	371959	758074	371959, 758074
Receptor_143	Offsite Worker	371953	757977	371953, 757977
Receptor_144	Offsite Worker	371948	757880	371948, 757880
Receptor_145	Offsite Worker	371943	757783	371943, 757783
Receptor_146	Offsite Worker	372016	757794	372016, 757794
Receptor_147	Offsite Worker	372102	757791	372102, 757791
Receptor_148	Offsite Worker	372178	757760	372178, 757760
Receptor_149	Offsite Worker	372177	757670	372177, 757670
Receptor_150	Offsite Worker	372176	757579	372176, 757579
Receptor_151	Offsite Worker	372174	757489	372174, 757489
Receptor_152	Offsite Worker	372173	757398	372173, 757398
Receptor_153	Offsite Worker	372171	757308	372171, 757308
Receptor_154	Offsite Worker	372055	757309	372055, 757309
Receptor_155	Residential	372055	757363	372055, 757363
Receptor_156	Offsite Worker	372055	757416	372055, 757416
Receptor_157	Offsite Worker	371952	757442	371952, 757442
Receptor_158	Offsite Worker	371950	757345	371950, 757345
Receptor_159	Offsite Worker	371864	757344	371864, 757344
Receptor_160	Offsite Worker	371790	757347	371790, 757347
Receptor_161	Offsite Worker	371708	757356	371708, 757356
Receptor_162	Offsite Worker	371615	757356	371615, 757356
Receptor_163	Offsite Worker	371523	757356	371523, 757356
Receptor_164	Offsite Worker	371430	757356	371430, 757356
Receptor_165	Offsite Worker	371338	757356	371338, 757356
Receptor_166	Offsite Worker	371245	757356	371245, 757356
Receptor_167	Offsite Worker	371153	757356	371153, 757356
Receptor_168	Offsite Worker	371061	757356	371061, 757356
Receptor_169	Offsite Worker	371005	757357	371005, 757357
Receptor_170	Offsite Worker	370998	757293	370998, 757293
Receptor_171	Offsite Worker	370998	757194	370998, 757194
Receptor_172	Offsite Worker	370998	757096	370998, 757096

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_173	Offsite Worker	370998	756998	370998, 756998
Receptor_174	Offsite Worker	371057	756997	371057, 756997
Receptor_175	Offsite Worker	371153	756997	371153, 756997
Receptor_176	Offsite Worker	371249	756997	371249, 756997
Receptor_177	Offsite Worker	371345	756997	371345, 756997
Receptor_178	Offsite Worker	371440	756997	371440, 756997
Receptor_179	Offsite Worker	371536	756997	371536, 756997
Receptor_180	Offsite Worker	371632	756997	371632, 756997
Receptor_181	Offsite Worker	371728	756997	371728, 756997
Receptor_182	Offsite Worker	371824	756997	371824, 756997
Receptor_183	Offsite Worker	371920	756997	371920, 756997
Receptor_184	Offsite Worker	372016	756997	372016, 756997
Receptor_185	Offsite Worker	372111	756997	372111, 756997
Receptor_186	Offsite Worker	372207	756997	372207, 756997
Receptor_187	Offsite Worker	372303	756997	372303, 756997
Receptor_188	Offsite Worker	372399	756997	372399, 756997
Receptor_189	Offsite Worker	372495	756997	372495, 756997
Receptor_190	Offsite Worker	372591	756997	372591, 756997
Receptor_191	Offsite Worker	372610	757063	372610, 757063
Receptor_192	Offsite Worker	372612	757132	372612, 757132
Receptor_193	Offsite Worker	372614	757201	372614, 757201
Receptor_194	Offsite Worker	372616	757270	372616, 757270
Receptor_195	Offsite Worker	372627	757351	372627, 757351
Receptor_196	Offsite Worker	372651	757422	372651, 757422
Receptor_197	Offsite Worker	372676	757494	372676, 757494
Receptor_198	Offsite Worker	372704	757569	372704, 757569
Receptor_199	Offsite Worker	372733	757645	372733, 757645
Receptor_200	Offsite Worker	372746	757702	372746, 757702
Receptor_201	Offsite Worker	372746	757768	372746, 757768
Receptor_202	Offsite Worker	372807	757781	372807, 757781
Receptor_203	Offsite Worker	372901	757782	372901, 757782
Receptor_204	Offsite Worker	372994	757783	372994, 757783
Receptor_205	Offsite Worker	373087	757783	373087, 757783
Receptor_206	Offsite Worker	373180	757784	373180, 757784
Receptor_207	Offsite Worker	373274	757785	373274, 757785
Receptor_208	Offsite Worker	373367	757786	373367, 757786
Receptor_209	Offsite Worker	373418	757742	373418, 757742
Receptor_210	Offsite Worker	373418	757653	373418, 757653
Receptor_211	Offsite Worker	373419	757564	373419, 757564
Receptor_212	Offsite Worker	373419	757475	373419, 757475
Receptor_213	Offsite Worker	373420	757386	373420, 757386
Receptor_214	Offsite Worker	373420	757297	373420, 757297
Receptor_215	Offsite Worker	373421	757207	373421, 757207

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_216	Offsite Worker	373421	757118	373421, 757118
Receptor_217	Offsite Worker	373292	757117	373292, 757117
Receptor_218	Offsite Worker	373213	757118	373213, 757118
Receptor_219	Offsite Worker	373158	757066	373158, 757066
Receptor_220	Offsite Worker	373084	757026	373084, 757026
Receptor_221	Offsite Worker	373009	757011	373009, 757011
Receptor_222	Offsite Worker	372922	757009	372922, 757009
Receptor_223	Offsite Worker	372835	757007	372835, 757007
Receptor_224	Offsite Worker	372747	757006	372747, 757006
Receptor_225	Offsite Worker	372660	757004	372660, 757004
Receptor_226	Offsite Worker	372651	757063	372651, 757063
Receptor_227	Offsite Worker	372629	756931	372629, 756931
Receptor_228	Offsite Worker	372631	756857	372631, 756857
Receptor_229	Offsite Worker	372634	756783	372634, 756783
Receptor_230	Offsite Worker	372702	756778	372702, 756778
Receptor_231	Offsite Worker	372756	756775	372756, 756775
Receptor_232	Offsite Worker	372729	756712	372729, 756712
Receptor_233	Offsite Worker	372703	756650	372703, 756650
Receptor_234	Offsite Worker	372677	756588	372677, 756588
Receptor_235	Offsite Worker	372619	756588	372619, 756588
Receptor_236	Offsite Worker	372622	756509	372622, 756509
Receptor_237	Offsite Worker	372700	756511	372700, 756511
Receptor_238	Offsite Worker	372789	756510	372789, 756510
Receptor_239	Offsite Worker	372871	756509	372871, 756509
Receptor_240	Offsite Worker	372871	756437	372871, 756437
Receptor_241	Offsite Worker	372970	756437	372970, 756437
Receptor_242	Offsite Worker	373069	756437	373069, 756437
Receptor_243	Offsite Worker	373168	756437	373168, 756437
Receptor_244	Offsite Worker	373267	756437	373267, 756437
Receptor_245	Offsite Worker	373412	756437	373412, 756437
Receptor_246	Offsite Worker	373409	756339	373409, 756339
Receptor_247	Offsite Worker	373406	756240	373406, 756240
Receptor_248	Offsite Worker	373403	756142	373403, 756142
Receptor_249	Offsite Worker	373400	756042	373400, 756042
Receptor_250	Offsite Worker	373397	755944	373397, 755944
Receptor_251	Offsite Worker	373393	755846	373393, 755846
Receptor_252	Offsite Worker	373390	755747	373390, 755747
Receptor_253	Offsite Worker	373309	755744	373309, 755744
Receptor_254	Offsite Worker	373229	755743	373229, 755743
Receptor_255	Offsite Worker	373143	755741	373143, 755741
Receptor_256	Offsite Worker	373143	755823	373143, 755823
Receptor_257	Offsite Worker	373143	755906	373143, 755906
Receptor_258	Offsite Worker	373065	755906	373065, 755906

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_259	Offsite Worker	373065	755827	373065, 755827
Receptor_260	Offsite Worker	373068	755733	373068, 755733
Receptor_261	Offsite Worker	373007	755733	373007, 755733
Receptor_262	Offsite Worker	372941	755733	372941, 755733
Receptor_263	Offsite Worker	372941	755636	372941, 755636
Receptor_264	Offsite Worker	372941	755539	372941, 755539
Receptor_265	Offsite Worker	372941	755442	372941, 755442
Receptor_266	Offsite Worker	372913	755342	372913, 755342
Receptor_267	Offsite Worker	372817	755346	372817, 755346
Receptor_268	Offsite Worker	372720	755349	372720, 755349
Receptor_269	Offsite Worker	372624	755352	372624, 755352
Receptor_270	Offsite Worker	372527	755349	372527, 755349
Receptor_271	Offsite Worker	372431	755353	372431, 755353
Receptor_272	Offsite Worker	372334	755356	372334, 755356
Receptor_273	Offsite Worker	372237	755359	372237, 755359
Receptor_274	Offsite Worker	372141	755362	372141, 755362
Receptor_275	Offsite Worker	372044	755366	372044, 755366
Receptor_276	Offsite Worker	371948	755369	371948, 755369
Receptor_277	Offsite Worker	371851	755372	371851, 755372
Receptor_278	Offsite Worker	371755	755375	371755, 755375
Receptor_279	Offsite Worker	371658	755378	371658, 755378
Receptor_280	Offsite Worker	371562	755382	371562, 755382
Receptor_281	Offsite Worker	371465	755385	371465, 755385
Receptor_282	Offsite Worker	371368	755388	371368, 755388
Receptor_283	Offsite Worker	371272	755391	371272, 755391
Receptor_284	Offsite Worker	371175	755395	371175, 755395
Receptor_285	Offsite Worker	371079	755398	371079, 755398
Receptor_286	Offsite Worker	371042	755478	371042, 755478
Receptor_287	Offsite Worker	371009	755538	371009, 755538
Receptor_288	Offsite Worker	370975	755597	370975, 755597
Receptor_289	Offsite Worker	370925	755597	370925, 755597
Receptor_290	Offsite Worker	370860	755547	370860, 755547
Receptor_291	Offsite Worker	370796	755497	370796, 755497
Receptor_292	Offsite Worker	370733	755428	370733, 755428
Receptor_293	Offsite Worker	370634	755428	370634, 755428
Receptor_294	Offsite Worker	370536	755428	370536, 755428
Receptor_295	Offsite Worker	370437	755428	370437, 755428
Receptor_296	Offsite Worker	370338	755427	370338, 755427
Receptor_297	Residential	370239	755427	370239, 755427
Receptor_298	Residential	370138	755427	370138, 755427
Receptor_299	Residential	370040	755427	370040, 755427
Receptor_300	Residential	369941	755426	369941, 755426
Receptor_301	Residential	369842	755426	369842, 755426

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

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Construction Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_302	School	369741	755435	369741, 755435
Receptor_303	School	369643	755434	369643, 755434
Receptor_304	Residential	369544	755434	369544, 755434
Receptor_305	Residential	369445	755434	369445, 755434
Receptor_306	Residential	369346	755434	369346, 755434
Receptor_307	Offsite Worker	369249	755442	369249, 755442
Receptor_308	Offsite Worker	369151	755442	369151, 755442
Receptor_309	Offsite Worker	369052	755442	369052, 755442
Receptor_310	Residential	368953	755441	368953, 755441
Receptor_311	Residential	368854	755441	368854, 755441
Receptor_312	Residential	368755	755441	368755, 755441
Receptor_313	Residential	368657	755441	368657, 755441
Receptor_314	Residential	368558	755440	368558, 755440
Receptor_315	Residential	368459	755440	368459, 755440
Receptor_316	Residential	368360	755440	368360, 755440
Receptor_317	Residential	368262	755439	368262, 755439
Receptor_318	Residential	368186	755427	368186, 755427
Receptor_319	Residential	368111	755414	368111, 755414
Receptor_320	Offsite Worker	368035	755402	368035, 755402
Receptor_321	Offsite Worker	367960	755389	367960, 755389
Receptor_322	Offsite Worker	367863	755390	367863, 755390
Receptor_323	Offsite Worker	367766	755392	367766, 755392
Receptor_324	Offsite Worker	367669	755393	367669, 755393
Receptor_325	Offsite Worker	367572	755394	367572, 755394
Receptor_326	Offsite Worker	367475	755395	367475, 755395
Receptor_327	On-Site Occupational	370403	756882	370403, 756882

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

Attachment B.2

Construction – Localized Significance Thresholds (LST) Dispersion Modeling

- Dispersion Result Summaries
 - CO
 - NO₂
 - SO₂
 - PM₁₀
 - PM_{2.5}

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Construction Dispersion

CO 1-Hr

CO 8-Hr

Receptor ID	Concentrations (ug/m3)					Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_1	17	4,104	4,121	23,000	No	8	2,884	2,892	10,000	No
Receptor_2	17	4,104	4,121	23,000	No	10	2,884	2,894	10,000	No
Receptor_3	20	4,104	4,124	23,000	No	10	2,884	2,895	10,000	No
Receptor_4	22	4,104	4,126	23,000	No	11	2,884	2,895	10,000	No
Receptor_5	21	4,104	4,125	23,000	No	11	2,884	2,896	10,000	No
Receptor_6	20	4,104	4,124	23,000	No	11	2,884	2,896	10,000	No
Receptor_7	20	4,104	4,124	23,000	No	11	2,884	2,895	10,000	No
Receptor_8	21	4,104	4,125	23,000	No	10	2,884	2,895	10,000	No
Receptor_9	21	4,104	4,125	23,000	No	10	2,884	2,894	10,000	No
Receptor_10	19	4,104	4,123	23,000	No	11	2,884	2,895	10,000	No
Receptor_11	19	4,104	4,123	23,000	No	12	2,884	2,896	10,000	No
Receptor_12	18	4,104	4,122	23,000	No	12	2,884	2,897	10,000	No
Receptor_13	18	4,104	4,122	23,000	No	13	2,884	2,897	10,000	No
Receptor_14	19	4,104	4,123	23,000	No	13	2,884	2,897	10,000	No
Receptor_15	18	4,104	4,122	23,000	No	13	2,884	2,897	10,000	No
Receptor_16	18	4,104	4,122	23,000	No	12	2,884	2,896	10,000	No
Receptor_17	17	4,104	4,121	23,000	No	11	2,884	2,895	10,000	No
Receptor_18	15	4,104	4,119	23,000	No	10	2,884	2,895	10,000	No
Receptor_19	16	4,104	4,120	23,000	No	9	2,884	2,894	10,000	No
Receptor_20	18	4,104	4,122	23,000	No	8	2,884	2,892	10,000	No
Receptor_21	19	4,104	4,123	23,000	No	7	2,884	2,891	10,000	No
Receptor_22	19	4,104	4,123	23,000	No	6	2,884	2,890	10,000	No
Receptor_23	18	4,104	4,122	23,000	No	5	2,884	2,890	10,000	No
Receptor_24	16	4,104	4,120	23,000	No	5	2,884	2,889	10,000	No
Receptor_25	13	4,104	4,117	23,000	No	5	2,884	2,889	10,000	No
Receptor_26	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_27	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_28	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_29	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_30	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_31	13	4,104	4,117	23,000	No	5	2,884	2,889	10,000	No
Receptor_32	14	4,104	4,118	23,000	No	5	2,884	2,889	10,000	No
Receptor_33	15	4,104	4,119	23,000	No	5	2,884	2,889	10,000	No
Receptor_34	15	4,104	4,119	23,000	No	5	2,884	2,890	10,000	No
Receptor_35	17	4,104	4,121	23,000	No	6	2,884	2,890	10,000	No
Receptor_36	19	4,104	4,123	23,000	No	6	2,884	2,890	10,000	No
Receptor_37	20	4,104	4,124	23,000	No	7	2,884	2,891	10,000	No
Receptor_38	19	4,104	4,123	23,000	No	7	2,884	2,891	10,000	No
Receptor_39	18	4,104	4,122	23,000	No	7	2,884	2,892	10,000	No
Receptor_40	19	4,104	4,123	23,000	No	8	2,884	2,892	10,000	No
Receptor_41	20	4,104	4,124	23,000	No	8	2,884	2,892	10,000	No
Receptor_42	22	4,104	4,126	23,000	No	9	2,884	2,893	10,000	No
Receptor_43	22	4,104	4,126	23,000	No	8	2,884	2,892	10,000	No
Receptor_44	24	4,104	4,128	23,000	No	8	2,884	2,892	10,000	No
Receptor_45	24	4,104	4,128	23,000	No	8	2,884	2,892	10,000	No
Receptor_46	25	4,104	4,129	23,000	No	9	2,884	2,893	10,000	No
Receptor_47	26	4,104	4,130	23,000	No	10	2,884	2,894	10,000	No
Receptor_48	27	4,104	4,131	23,000	No	10	2,884	2,894	10,000	No
Receptor_49	28	4,104	4,132	23,000	No	10	2,884	2,894	10,000	No
Receptor_50	29	4,104	4,133	23,000	No	10	2,884	2,895	10,000	No
Receptor_51	28	4,104	4,132	23,000	No	10	2,884	2,895	10,000	No
Receptor_52	27	4,104	4,131	23,000	No	10	2,884	2,894	10,000	No
Receptor_53	24	4,104	4,128	23,000	No	10	2,884	2,894	10,000	No
Receptor_54	21	4,104	4,125	23,000	No	9	2,884	2,893	10,000	No
Receptor_55	20	4,104	4,124	23,000	No	9	2,884	2,893	10,000	No
Receptor_56	20	4,104	4,124	23,000	No	9	2,884	2,893	10,000	No
Receptor_57	21	4,104	4,125	23,000	No	9	2,884	2,893	10,000	No
Receptor_58	22	4,104	4,126	23,000	No	10	2,884	2,894	10,000	No
Receptor_59	22	4,104	4,126	23,000	No	10	2,884	2,894	10,000	No
Receptor_60	23	4,104	4,127	23,000	No	11	2,884	2,895	10,000	No
Receptor_61	25	4,104	4,129	23,000	No	12	2,884	2,896	10,000	No
Receptor_62	27	4,104	4,131	23,000	No	13	2,884	2,897	10,000	No
Receptor_63	29	4,104	4,133	23,000	No	14	2,884	2,898	10,000	No
Receptor_64	31	4,104	4,135	23,000	No	15	2,884	2,899	10,000	No
Receptor_65	32	4,104	4,136	23,000	No	16	2,884	2,900	10,000	No
Receptor_66	32	4,104	4,136	23,000	No	17	2,884	2,901	10,000	No

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Receptor ID	Concentrations (ug/m3)					Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_67	33	4,104	4,137	23,000	No	18	2,884	2,902	10,000	No
Receptor_68	35	4,104	4,139	23,000	No	19	2,884	2,903	10,000	No
Receptor_69	38	4,104	4,142	23,000	No	21	2,884	2,905	10,000	No
Receptor_70	37	4,104	4,141	23,000	No	20	2,884	2,905	10,000	No
Receptor_71	38	4,104	4,142	23,000	No	21	2,884	2,905	10,000	No
Receptor_72	38	4,104	4,142	23,000	No	23	2,884	2,907	10,000	No
Receptor_73	39	4,104	4,143	23,000	No	24	2,884	2,908	10,000	No
Receptor_74	38	4,104	4,142	23,000	No	24	2,884	2,908	10,000	No
Receptor_75	37	4,104	4,141	23,000	No	24	2,884	2,908	10,000	No
Receptor_76	41	4,104	4,145	23,000	No	26	2,884	2,910	10,000	No
Receptor_77	40	4,104	4,144	23,000	No	25	2,884	2,909	10,000	No
Receptor_78	40	4,104	4,144	23,000	No	24	2,884	2,908	10,000	No
Receptor_79	47	4,104	4,151	23,000	No	25	2,884	2,909	10,000	No
Receptor_80	53	4,104	4,157	23,000	No	26	2,884	2,910	10,000	No
Receptor_81	57	4,104	4,161	23,000	No	27	2,884	2,911	10,000	No
Receptor_82	52	4,104	4,156	23,000	No	25	2,884	2,910	10,000	No
Receptor_83	47	4,104	4,151	23,000	No	24	2,884	2,908	10,000	No
Receptor_84	47	4,104	4,151	23,000	No	22	2,884	2,906	10,000	No
Receptor_85	44	4,104	4,148	23,000	No	21	2,884	2,905	10,000	No
Receptor_86	39	4,104	4,143	23,000	No	20	2,884	2,904	10,000	No
Receptor_87	40	4,104	4,144	23,000	No	18	2,884	2,902	10,000	No
Receptor_88	38	4,104	4,142	23,000	No	17	2,884	2,901	10,000	No
Receptor_89	36	4,104	4,140	23,000	No	16	2,884	2,901	10,000	No
Receptor_90	34	4,104	4,138	23,000	No	15	2,884	2,899	10,000	No
Receptor_91	32	4,104	4,136	23,000	No	14	2,884	2,898	10,000	No
Receptor_92	30	4,104	4,134	23,000	No	13	2,884	2,897	10,000	No
Receptor_93	28	4,104	4,132	23,000	No	13	2,884	2,897	10,000	No
Receptor_94	27	4,104	4,131	23,000	No	13	2,884	2,897	10,000	No
Receptor_95	27	4,104	4,131	23,000	No	14	2,884	2,898	10,000	No
Receptor_96	26	4,104	4,130	23,000	No	14	2,884	2,898	10,000	No
Receptor_97	25	4,104	4,129	23,000	No	13	2,884	2,897	10,000	No
Receptor_98	27	4,104	4,131	23,000	No	14	2,884	2,898	10,000	No
Receptor_99	29	4,104	4,133	23,000	No	15	2,884	2,899	10,000	No
Receptor_100	32	4,104	4,136	23,000	No	15	2,884	2,900	10,000	No
Receptor_101	32	4,104	4,136	23,000	No	15	2,884	2,899	10,000	No
Receptor_102	32	4,104	4,136	23,000	No	14	2,884	2,898	10,000	No
Receptor_103	30	4,104	4,134	23,000	No	15	2,884	2,899	10,000	No
Receptor_104	28	4,104	4,132	23,000	No	15	2,884	2,900	10,000	No
Receptor_105	28	4,104	4,132	23,000	No	16	2,884	2,900	10,000	No
Receptor_106	30	4,104	4,134	23,000	No	17	2,884	2,901	10,000	No
Receptor_107	32	4,104	4,136	23,000	No	18	2,884	2,902	10,000	No
Receptor_108	30	4,104	4,134	23,000	No	18	2,884	2,902	10,000	No
Receptor_109	29	4,104	4,133	23,000	No	17	2,884	2,901	10,000	No
Receptor_110	27	4,104	4,131	23,000	No	16	2,884	2,900	10,000	No
Receptor_111	27	4,104	4,131	23,000	No	15	2,884	2,899	10,000	No
Receptor_112	26	4,104	4,130	23,000	No	15	2,884	2,899	10,000	No
Receptor_113	27	4,104	4,131	23,000	No	14	2,884	2,898	10,000	No
Receptor_114	26	4,104	4,130	23,000	No	13	2,884	2,897	10,000	No
Receptor_115	25	4,104	4,129	23,000	No	12	2,884	2,896	10,000	No
Receptor_116	24	4,104	4,128	23,000	No	12	2,884	2,896	10,000	No
Receptor_117	25	4,104	4,129	23,000	No	13	2,884	2,898	10,000	No
Receptor_118	25	4,104	4,129	23,000	No	15	2,884	2,899	10,000	No
Receptor_119	26	4,104	4,130	23,000	No	17	2,884	2,901	10,000	No
Receptor_120	29	4,104	4,133	23,000	No	18	2,884	2,903	10,000	No
Receptor_121	29	4,104	4,133	23,000	No	19	2,884	2,903	10,000	No
Receptor_122	28	4,104	4,132	23,000	No	19	2,884	2,903	10,000	No
Receptor_123	27	4,104	4,131	23,000	No	19	2,884	2,903	10,000	No
Receptor_124	25	4,104	4,129	23,000	No	18	2,884	2,902	10,000	No
Receptor_125	26	4,104	4,130	23,000	No	18	2,884	2,902	10,000	No
Receptor_126	26	4,104	4,130	23,000	No	17	2,884	2,902	10,000	No
Receptor_127	23	4,104	4,127	23,000	No	17	2,884	2,901	10,000	No
Receptor_128	22	4,104	4,126	23,000	No	16	2,884	2,900	10,000	No
Receptor_129	23	4,104	4,127	23,000	No	15	2,884	2,900	10,000	No
Receptor_130	21	4,104	4,125	23,000	No	15	2,884	2,899	10,000	No
Receptor_131	20	4,104	4,124	23,000	No	14	2,884	2,899	10,000	No
Receptor_132	19	4,104	4,123	23,000	No	13	2,884	2,898	10,000	No

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Receptor ID	Concentrations (ug/m3)					Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_133	18	4,104	4,122	23,000	No	13	2,884	2,897	10,000	No
Receptor_134	17	4,104	4,121	23,000	No	12	2,884	2,896	10,000	No
Receptor_135	17	4,104	4,121	23,000	No	11	2,884	2,896	10,000	No
Receptor_136	16	4,104	4,120	23,000	No	11	2,884	2,895	10,000	No
Receptor_137	15	4,104	4,119	23,000	No	10	2,884	2,894	10,000	No
Receptor_138	15	4,104	4,119	23,000	No	10	2,884	2,894	10,000	No
Receptor_139	16	4,104	4,120	23,000	No	10	2,884	2,894	10,000	No
Receptor_140	15	4,104	4,119	23,000	No	9	2,884	2,893	10,000	No
Receptor_141	15	4,104	4,119	23,000	No	9	2,884	2,893	10,000	No
Receptor_142	15	4,104	4,119	23,000	No	9	2,884	2,893	10,000	No
Receptor_143	16	4,104	4,120	23,000	No	9	2,884	2,893	10,000	No
Receptor_144	17	4,104	4,121	23,000	No	9	2,884	2,893	10,000	No
Receptor_145	18	4,104	4,122	23,000	No	9	2,884	2,893	10,000	No
Receptor_146	17	4,104	4,121	23,000	No	8	2,884	2,893	10,000	No
Receptor_147	16	4,104	4,120	23,000	No	8	2,884	2,892	10,000	No
Receptor_148	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_149	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_150	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_151	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_152	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_153	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_154	16	4,104	4,120	23,000	No	8	2,884	2,893	10,000	No
Receptor_155	16	4,104	4,120	23,000	No	9	2,884	2,893	10,000	No
Receptor_156	16	4,104	4,120	23,000	No	9	2,884	2,893	10,000	No
Receptor_157	17	4,104	4,121	23,000	No	9	2,884	2,893	10,000	No
Receptor_158	17	4,104	4,121	23,000	No	9	2,884	2,893	10,000	No
Receptor_159	18	4,104	4,122	23,000	No	10	2,884	2,894	10,000	No
Receptor_160	18	4,104	4,122	23,000	No	10	2,884	2,894	10,000	No
Receptor_161	19	4,104	4,123	23,000	No	11	2,884	2,895	10,000	No
Receptor_162	20	4,104	4,124	23,000	No	11	2,884	2,895	10,000	No
Receptor_163	21	4,104	4,125	23,000	No	12	2,884	2,896	10,000	No
Receptor_164	22	4,104	4,126	23,000	No	12	2,884	2,897	10,000	No
Receptor_165	23	4,104	4,127	23,000	No	13	2,884	2,897	10,000	No
Receptor_166	25	4,104	4,129	23,000	No	14	2,884	2,898	10,000	No
Receptor_167	27	4,104	4,131	23,000	No	15	2,884	2,899	10,000	No
Receptor_168	28	4,104	4,132	23,000	No	16	2,884	2,900	10,000	No
Receptor_169	30	4,104	4,134	23,000	No	17	2,884	2,901	10,000	No
Receptor_170	30	4,104	4,134	23,000	No	17	2,884	2,901	10,000	No
Receptor_171	31	4,104	4,135	23,000	No	18	2,884	2,902	10,000	No
Receptor_172	32	4,104	4,136	23,000	No	17	2,884	2,902	10,000	No
Receptor_173	31	4,104	4,135	23,000	No	16	2,884	2,901	10,000	No
Receptor_174	30	4,104	4,134	23,000	No	16	2,884	2,900	10,000	No
Receptor_175	28	4,104	4,132	23,000	No	14	2,884	2,899	10,000	No
Receptor_176	26	4,104	4,130	23,000	No	13	2,884	2,898	10,000	No
Receptor_177	24	4,104	4,128	23,000	No	12	2,884	2,897	10,000	No
Receptor_178	23	4,104	4,127	23,000	No	12	2,884	2,896	10,000	No
Receptor_179	21	4,104	4,125	23,000	No	11	2,884	2,895	10,000	No
Receptor_180	20	4,104	4,124	23,000	No	10	2,884	2,894	10,000	No
Receptor_181	19	4,104	4,123	23,000	No	10	2,884	2,894	10,000	No
Receptor_182	18	4,104	4,122	23,000	No	9	2,884	2,893	10,000	No
Receptor_183	17	4,104	4,121	23,000	No	9	2,884	2,893	10,000	No
Receptor_184	16	4,104	4,120	23,000	No	8	2,884	2,892	10,000	No
Receptor_185	15	4,104	4,119	23,000	No	8	2,884	2,892	10,000	No
Receptor_186	15	4,104	4,119	23,000	No	7	2,884	2,891	10,000	No
Receptor_187	14	4,104	4,118	23,000	No	7	2,884	2,891	10,000	No
Receptor_188	14	4,104	4,118	23,000	No	7	2,884	2,891	10,000	No
Receptor_189	13	4,104	4,117	23,000	No	6	2,884	2,891	10,000	No
Receptor_190	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_191	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_192	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_193	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_194	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_195	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_196	12	4,104	4,116	23,000	No	6	2,884	2,891	10,000	No
Receptor_197	12	4,104	4,116	23,000	No	6	2,884	2,891	10,000	No
Receptor_198	12	4,104	4,116	23,000	No	6	2,884	2,891	10,000	No

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Receptor ID	Concentrations (ug/m3)					Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_199	11	4,104	4,115	23,000	No	6	2,884	2,891	10,000	No
Receptor_200	11	4,104	4,115	23,000	No	6	2,884	2,890	10,000	No
Receptor_201	11	4,104	4,115	23,000	No	6	2,884	2,890	10,000	No
Receptor_202	11	4,104	4,115	23,000	No	6	2,884	2,890	10,000	No
Receptor_203	11	4,104	4,115	23,000	No	6	2,884	2,890	10,000	No
Receptor_204	10	4,104	4,114	23,000	No	6	2,884	2,890	10,000	No
Receptor_205	10	4,104	4,114	23,000	No	5	2,884	2,890	10,000	No
Receptor_206	10	4,104	4,114	23,000	No	5	2,884	2,889	10,000	No
Receptor_207	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_208	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_209	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_210	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_211	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_212	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_213	9	4,104	4,113	23,000	No	4	2,884	2,889	10,000	No
Receptor_214	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_215	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_216	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_217	9	4,104	4,113	23,000	No	5	2,884	2,889	10,000	No
Receptor_218	10	4,104	4,114	23,000	No	5	2,884	2,889	10,000	No
Receptor_219	10	4,104	4,114	23,000	No	5	2,884	2,889	10,000	No
Receptor_220	10	4,104	4,114	23,000	No	5	2,884	2,889	10,000	No
Receptor_221	11	4,104	4,115	23,000	No	5	2,884	2,889	10,000	No
Receptor_222	11	4,104	4,115	23,000	No	5	2,884	2,889	10,000	No
Receptor_223	11	4,104	4,115	23,000	No	5	2,884	2,890	10,000	No
Receptor_224	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_225	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_226	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_227	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_228	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_229	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_230	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_231	12	4,104	4,116	23,000	No	5	2,884	2,890	10,000	No
Receptor_232	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_233	12	4,104	4,116	23,000	No	6	2,884	2,890	10,000	No
Receptor_234	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_235	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_236	14	4,104	4,118	23,000	No	6	2,884	2,890	10,000	No
Receptor_237	14	4,104	4,118	23,000	No	6	2,884	2,890	10,000	No
Receptor_238	13	4,104	4,117	23,000	No	6	2,884	2,890	10,000	No
Receptor_239	13	4,104	4,117	23,000	No	5	2,884	2,890	10,000	No
Receptor_240	13	4,104	4,117	23,000	No	5	2,884	2,889	10,000	No
Receptor_241	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_242	12	4,104	4,116	23,000	No	5	2,884	2,889	10,000	No
Receptor_243	11	4,104	4,115	23,000	No	5	2,884	2,889	10,000	No
Receptor_244	11	4,104	4,115	23,000	No	5	2,884	2,889	10,000	No
Receptor_245	10	4,104	4,114	23,000	No	4	2,884	2,889	10,000	No
Receptor_246	11	4,104	4,115	23,000	No	4	2,884	2,888	10,000	No
Receptor_247	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_248	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_249	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_250	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_251	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_252	9	4,104	4,113	23,000	No	3	2,884	2,888	10,000	No
Receptor_253	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_254	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_255	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_256	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_257	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_258	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_259	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_260	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_261	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_262	10	4,104	4,114	23,000	No	4	2,884	2,888	10,000	No
Receptor_263	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No
Receptor_264	9	4,104	4,113	23,000	No	4	2,884	2,888	10,000	No

MSC North Project Draft EIR
Construction Dispersion

CO 1-Hr

CO 8-Hr

Receptor ID	Construction	Concentrations (ug/m3)			
		Ambient	Total	Threshold	Exceeds?
Receptor_265	9	4,104	4,113	23,000	No
Receptor_266	9	4,104	4,113	23,000	No
Receptor_267	10	4,104	4,114	23,000	No
Receptor_268	10	4,104	4,114	23,000	No
Receptor_269	10	4,104	4,114	23,000	No
Receptor_270	11	4,104	4,115	23,000	No
Receptor_271	11	4,104	4,115	23,000	No
Receptor_272	12	4,104	4,116	23,000	No
Receptor_273	13	4,104	4,117	23,000	No
Receptor_274	13	4,104	4,117	23,000	No
Receptor_275	14	4,104	4,118	23,000	No
Receptor_276	14	4,104	4,118	23,000	No
Receptor_277	14	4,104	4,118	23,000	No
Receptor_278	15	4,104	4,119	23,000	No
Receptor_279	15	4,104	4,119	23,000	No
Receptor_280	16	4,104	4,120	23,000	No
Receptor_281	16	4,104	4,120	23,000	No
Receptor_282	17	4,104	4,121	23,000	No
Receptor_283	17	4,104	4,121	23,000	No
Receptor_284	18	4,104	4,122	23,000	No
Receptor_285	20	4,104	4,124	23,000	No
Receptor_286	20	4,104	4,124	23,000	No
Receptor_287	21	4,104	4,125	23,000	No
Receptor_288	22	4,104	4,126	23,000	No
Receptor_289	22	4,104	4,126	23,000	No
Receptor_290	23	4,104	4,127	23,000	No
Receptor_291	23	4,104	4,127	23,000	No
Receptor_292	23	4,104	4,127	23,000	No
Receptor_293	25	4,104	4,129	23,000	No
Receptor_294	26	4,104	4,130	23,000	No
Receptor_295	26	4,104	4,130	23,000	No
Receptor_296	27	4,104	4,131	23,000	No
Receptor_297	27	4,104	4,131	23,000	No
Receptor_298	31	4,104	4,135	23,000	No
Receptor_299	33	4,104	4,137	23,000	No
Receptor_300	35	4,104	4,139	23,000	No
Receptor_301	35	4,104	4,139	23,000	No
Receptor_302	37	4,104	4,141	23,000	No
Receptor_303	39	4,104	4,143	23,000	No
Receptor_304	39	4,104	4,143	23,000	No
Receptor_305	40	4,104	4,144	23,000	No
Receptor_306	40	4,104	4,144	23,000	No
Receptor_307	38	4,104	4,142	23,000	No
Receptor_308	39	4,104	4,143	23,000	No
Receptor_309	41	4,104	4,145	23,000	No
Receptor_310	44	4,104	4,148	23,000	No
Receptor_311	43	4,104	4,147	23,000	No
Receptor_312	41	4,104	4,145	23,000	No
Receptor_313	40	4,104	4,144	23,000	No
Receptor_314	39	4,104	4,143	23,000	No
Receptor_315	36	4,104	4,140	23,000	No
Receptor_316	37	4,104	4,141	23,000	No
Receptor_317	34	4,104	4,138	23,000	No
Receptor_318	33	4,104	4,137	23,000	No
Receptor_319	31	4,104	4,135	23,000	No
Receptor_320	29	4,104	4,133	23,000	No
Receptor_321	26	4,104	4,130	23,000	No
Receptor_322	22	4,104	4,126	23,000	No
Receptor_323	21	4,104	4,125	23,000	No
Receptor_324	20	4,104	4,124	23,000	No
Receptor_325	19	4,104	4,123	23,000	No
Receptor_326	18	4,104	4,122	23,000	No
Receptor_327	57	4,104	4,161	23,000	No

Construction	Concentrations (ug/m3)			
	Ambient	Total	Threshold	Exceeds?
4	2,884	2,888	10,000	No
3	2,884	2,888	10,000	No
4	2,884	2,888	10,000	No
4	2,884	2,888	10,000	No
4	2,884	2,888	10,000	No
4	2,884	2,888	10,000	No
4	2,884	2,888	10,000	No
4	2,884	2,888	10,000	No
4	2,884	2,889	10,000	No
5	2,884	2,889	10,000	No
5	2,884	2,889	10,000	No
5	2,884	2,889	10,000	No
5	2,884	2,890	10,000	No
6	2,884	2,890	10,000	No
6	2,884	2,890	10,000	No
6	2,884	2,890	10,000	No
6	2,884	2,891	10,000	No
7	2,884	2,891	10,000	No
7	2,884	2,891	10,000	No
8	2,884	2,892	10,000	No
8	2,884	2,892	10,000	No
8	2,884	2,893	10,000	No
9	2,884	2,893	10,000	No
9	2,884	2,893	10,000	No
9	2,884	2,893	10,000	No
9	2,884	2,894	10,000	No
10	2,884	2,894	10,000	No
11	2,884	2,895	10,000	No
11	2,884	2,895	10,000	No
13	2,884	2,897	10,000	No
14	2,884	2,898	10,000	No
15	2,884	2,899	10,000	No
15	2,884	2,900	10,000	No
15	2,884	2,899	10,000	No
16	2,884	2,901	10,000	No
19	2,884	2,903	10,000	No
21	2,884	2,905	10,000	No
22	2,884	2,906	10,000	No
21	2,884	2,906	10,000	No
21	2,884	2,905	10,000	No
25	2,884	2,909	10,000	No
30	2,884	2,914	10,000	No
34	2,884	2,918	10,000	No
35	2,884	2,919	10,000	No
33	2,884	2,917	10,000	No
29	2,884	2,913	10,000	No
24	2,884	2,908	10,000	No
21	2,884	2,905	10,000	No
19	2,884	2,903	10,000	No
16	2,884	2,900	10,000	No
14	2,884	2,898	10,000	No
13	2,884	2,897	10,000	No
12	2,884	2,896	10,000	No
11	2,884	2,895	10,000	No
10	2,884	2,894	10,000	No
9	2,884	2,893	10,000	No
8	2,884	2,892	10,000	No
8	2,884	2,892	10,000	No
32	2,884	2,916	10,000	No

Maximum	57	4,104	4,161	23,000	No
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35	2,884	2,919	10,000	No
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MSC North Project Draft EIR
Construction Dispersion

NO2 1-Hr (NAAQS)

NO2 1-Hr (CAAQS)

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_1	11	122	133	188	No
Receptor_2	11	122	133	188	No
Receptor_3	11	122	133	188	No
Receptor_4	11	122	133	188	No
Receptor_5	11	122	134	188	No
Receptor_6	11	122	134	188	No
Receptor_7	11	122	134	188	No
Receptor_8	12	122	134	188	No
Receptor_9	11	122	134	188	No
Receptor_10	11	122	134	188	No
Receptor_11	11	122	134	188	No
Receptor_12	11	122	133	188	No
Receptor_13	11	122	133	188	No
Receptor_14	11	122	133	188	No
Receptor_15	11	122	133	188	No
Receptor_16	10	122	132	188	No
Receptor_17	10	122	132	188	No
Receptor_18	10	122	132	188	No
Receptor_19	9	122	132	188	No
Receptor_20	9	122	131	188	No
Receptor_21	9	122	131	188	No
Receptor_22	8	122	131	188	No
Receptor_23	8	122	130	188	No
Receptor_24	8	122	130	188	No
Receptor_25	8	122	130	188	No
Receptor_26	7	122	129	188	No
Receptor_27	7	122	129	188	No
Receptor_28	7	122	129	188	No
Receptor_29	7	122	129	188	No
Receptor_30	7	122	130	188	No
Receptor_31	8	122	130	188	No
Receptor_32	8	122	130	188	No
Receptor_33	8	122	130	188	No
Receptor_34	8	122	131	188	No
Receptor_35	9	122	131	188	No
Receptor_36	9	122	131	188	No
Receptor_37	9	122	132	188	No
Receptor_38	10	122	132	188	No
Receptor_39	10	122	132	188	No
Receptor_40	11	122	133	188	No
Receptor_41	12	122	134	188	No
Receptor_42	12	122	134	188	No
Receptor_43	12	122	134	188	No
Receptor_44	12	122	135	188	No
Receptor_45	13	122	135	188	No
Receptor_46	14	122	136	188	No
Receptor_47	15	122	137	188	No
Receptor_48	15	122	137	188	No
Receptor_49	16	122	138	188	No
Receptor_50	17	122	139	188	No
Receptor_51	16	122	138	188	No
Receptor_52	16	122	138	188	No
Receptor_53	15	122	137	188	No
Receptor_54	14	122	136	188	No
Receptor_55	13	122	135	188	No
Receptor_56	13	122	135	188	No
Receptor_57	14	122	136	188	No
Receptor_58	15	122	137	188	No
Receptor_59	15	122	138	188	No
Receptor_60	17	122	139	188	No
Receptor_61	18	122	140	188	No
Receptor_62	20	122	142	188	No
Receptor_63	21	122	144	188	No
Receptor_64	23	122	146	188	No
Receptor_65	25	122	147	188	No
Receptor_66	26	122	148	188	No

Construction	Concentrations (ug/m3)			
	Ambient	Total	Threshold	Exceeds?
19	184	203	339	No
18	184	202	339	No
17	184	201	339	No
17	184	201	339	No
16	184	200	339	No
17	184	201	339	No
18	184	202	339	No
19	184	203	339	No
19	184	203	339	No
19	184	203	339	No
22	184	206	339	No
24	184	208	339	No
25	184	209	339	No
24	184	209	339	No
23	184	207	339	No
21	184	205	339	No
20	184	204	339	No
19	184	203	339	No
17	184	201	339	No
15	184	200	339	No
14	184	198	339	No
13	184	197	339	No
12	184	196	339	No
11	184	196	339	No
11	184	195	339	No
11	184	196	339	No
12	184	196	339	No
12	184	196	339	No
12	184	196	339	No
13	184	197	339	No
13	184	197	339	No
14	184	198	339	No
14	184	199	339	No
15	184	199	339	No
16	184	200	339	No
16	184	200	339	No
16	184	200	339	No
16	184	201	339	No
17	184	201	339	No
18	184	202	339	No
19	184	203	339	No
20	184	204	339	No
19	184	203	339	No
19	184	203	339	No
21	184	205	339	No
21	184	205	339	No
22	184	206	339	No
23	184	208	339	No
24	184	208	339	No
27	184	211	339	No
28	184	212	339	No
29	184	213	339	No
28	184	212	339	No
27	184	211	339	No
26	184	210	339	No
26	184	210	339	No
27	184	211	339	No
28	184	212	339	No
30	184	214	339	No
32	184	216	339	No
33	184	218	339	No
34	184	218	339	No
35	184	219	339	No
36	184	220	339	No
36	184	221	339	No
36	184	221	339	No

MSC North Project Draft EIR
Construction Dispersion

NO2 1-Hr (NAAQS)

NO2 1-Hr (CAAQS)

Receptor_ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_67	27	122	150	188	No
Receptor_68	29	122	151	188	No
Receptor_69	33	122	155	188	No
Receptor_70	38	122	160	188	No
Receptor_71	39	122	162	188	No
Receptor_72	38	122	160	188	No
Receptor_73	37	122	159	188	No
Receptor_74	36	122	158	188	No
Receptor_75	34	122	156	188	No
Receptor_76	36	122	158	188	No
Receptor_77	35	122	157	188	No
Receptor_78	33	122	155	188	No
Receptor_79	35	122	157	188	No
Receptor_80	37	122	159	188	No
Receptor_81	37	122	159	188	No
Receptor_82	35	122	157	188	No
Receptor_83	33	122	155	188	No
Receptor_84	32	122	154	188	No
Receptor_85	31	122	153	188	No
Receptor_86	30	122	152	188	No
Receptor_87	28	122	150	188	No
Receptor_88	26	122	148	188	No
Receptor_89	25	122	148	188	No
Receptor_90	24	122	146	188	No
Receptor_91	22	122	144	188	No
Receptor_92	21	122	143	188	No
Receptor_93	21	122	143	188	No
Receptor_94	20	122	142	188	No
Receptor_95	19	122	142	188	No
Receptor_96	19	122	141	188	No
Receptor_97	18	122	140	188	No
Receptor_98	18	122	141	188	No
Receptor_99	20	122	142	188	No
Receptor_100	21	122	144	188	No
Receptor_101	21	122	143	188	No
Receptor_102	21	122	143	188	No
Receptor_103	21	122	144	188	No
Receptor_104	21	122	143	188	No
Receptor_105	21	122	143	188	No
Receptor_106	21	122	143	188	No
Receptor_107	21	122	143	188	No
Receptor_108	20	122	142	188	No
Receptor_109	19	122	141	188	No
Receptor_110	18	122	140	188	No
Receptor_111	18	122	140	188	No
Receptor_112	17	122	139	188	No
Receptor_113	16	122	139	188	No
Receptor_114	16	122	138	188	No
Receptor_115	15	122	137	188	No
Receptor_116	15	122	137	188	No
Receptor_117	15	122	138	188	No
Receptor_118	16	122	139	188	No
Receptor_119	17	122	140	188	No
Receptor_120	19	122	141	188	No
Receptor_121	18	122	140	188	No
Receptor_122	18	122	140	188	No
Receptor_123	18	122	140	188	No
Receptor_124	17	122	139	188	No
Receptor_125	18	122	140	188	No
Receptor_126	17	122	139	188	No
Receptor_127	16	122	139	188	No
Receptor_128	16	122	138	188	No
Receptor_129	15	122	138	188	No
Receptor_130	15	122	137	188	No
Receptor_131	15	122	137	188	No
Receptor_132	14	122	136	188	No

Construction	Concentrations (ug/m3)			
	Ambient	Total	Threshold	Exceeds?
42	184	226	339	No
46	184	230	339	No
50	184	234	339	No
50	184	234	339	No
53	184	238	339	No
52	184	236	339	No
47	184	232	339	No
42	184	226	339	No
39	184	223	339	No
44	184	228	339	No
43	184	227	339	No
42	184	226	339	No
44	184	228	339	No
45	184	230	339	No
46	184	230	339	No
43	184	227	339	No
39	184	224	339	No
40	184	224	339	No
39	184	223	339	No
38	184	222	339	No
35	184	220	339	No
33	184	218	339	No
32	184	216	339	No
30	184	214	339	No
28	184	212	339	No
26	184	211	339	No
26	184	210	339	No
26	184	210	339	No
24	184	208	339	No
22	184	207	339	No
22	184	206	339	No
23	184	208	339	No
25	184	209	339	No
28	184	212	339	No
28	184	212	339	No
27	184	211	339	No
27	184	211	339	No
26	184	210	339	No
25	184	209	339	No
25	184	209	339	No
25	184	210	339	No
24	184	208	339	No
23	184	207	339	No
22	184	206	339	No
22	184	206	339	No
20	184	205	339	No
20	184	205	339	No
20	184	204	339	No
20	184	204	339	No
19	184	203	339	No
19	184	203	339	No
19	184	203	339	No
20	184	204	339	No
21	184	205	339	No
21	184	206	339	No
22	184	206	339	No
21	184	205	339	No
20	184	205	339	No
20	184	204	339	No
19	184	204	339	No
19	184	203	339	No
18	184	203	339	No
18	184	203	339	No
18	184	202	339	No
17	184	201	339	No
16	184	201	339	No

NO2 1-Hr (CAAQS)

[illegible]

NO2 1-Hr (CAAQS)

Concentrations (ug/m3)				
Construction	Ambient	Total	Threshold	Exceeds?
10	184	194	339	No
10	184	194	339	No
10	184	194	339	No
9	184	194	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
8	184	193	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	193	339	No
8	184	193	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
10	184	194	339	No
10	184	194	339	No
10	184	194	339	No
10	184	194	339	No
9	184	194	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
9	184	194	339	No
10	184	194	339	No
10	184	194	339	No
10	184	194	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
9	184	193	339	No
8	184	193	339	No
8	184	192	339	No
8	184	192	339	No
7	184	192	339	No
8	184	192	339	No
7	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
7	184	192	339	No
7	184	191	339	No
7	184	191	339	No
7	184	192	339	No
7	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
8	184	192	339	No
7	184	192	339	No
8	184	192	339	No
8	184	192	339	No
7	184	191	339	No
8	184	192	339	No

MSC North Project Draft EIR
Construction Dispersion

NO2 1-Hr (NAAQS)

NO2 1-Hr (CAAQS)

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_265	3	122	126	188	No
Receptor_266	3	122	126	188	No
Receptor_267	4	122	126	188	No
Receptor_268	4	122	126	188	No
Receptor_269	4	122	126	188	No
Receptor_270	4	122	126	188	No
Receptor_271	4	122	126	188	No
Receptor_272	4	122	126	188	No
Receptor_273	4	122	127	188	No
Receptor_274	5	122	127	188	No
Receptor_275	5	122	127	188	No
Receptor_276	5	122	127	188	No
Receptor_277	5	122	128	188	No
Receptor_278	6	122	128	188	No
Receptor_279	6	122	128	188	No
Receptor_280	6	122	128	188	No
Receptor_281	6	122	129	188	No
Receptor_282	7	122	129	188	No
Receptor_283	7	122	129	188	No
Receptor_284	8	122	130	188	No
Receptor_285	8	122	130	188	No
Receptor_286	8	122	131	188	No
Receptor_287	9	122	131	188	No
Receptor_288	9	122	131	188	No
Receptor_289	9	122	132	188	No
Receptor_290	10	122	132	188	No
Receptor_291	10	122	132	188	No
Receptor_292	10	122	132	188	No
Receptor_293	10	122	133	188	No
Receptor_294	11	122	133	188	No
Receptor_295	12	122	134	188	No
Receptor_296	13	122	135	188	No
Receptor_297	13	122	136	188	No
Receptor_298	14	122	136	188	No
Receptor_299	15	122	137	188	No
Receptor_300	16	122	138	188	No
Receptor_301	17	122	139	188	No
Receptor_302	18	122	140	188	No
Receptor_303	19	122	141	188	No
Receptor_304	20	122	142	188	No
Receptor_305	21	122	143	188	No
Receptor_306	22	122	144	188	No
Receptor_307	22	122	145	188	No
Receptor_308	23	122	145	188	No
Receptor_309	23	122	145	188	No
Receptor_310	23	122	145	188	No
Receptor_311	23	122	145	188	No
Receptor_312	22	122	145	188	No
Receptor_313	25	122	147	188	No
Receptor_314	25	122	147	188	No
Receptor_315	25	122	147	188	No
Receptor_316	24	122	146	188	No
Receptor_317	22	122	145	188	No
Receptor_318	20	122	143	188	No
Receptor_319	18	122	141	188	No
Receptor_320	16	122	139	188	No
Receptor_321	15	122	137	188	No
Receptor_322	14	122	136	188	No
Receptor_323	13	122	135	188	No
Receptor_324	13	122	135	188	No
Receptor_325	12	122	134	188	No
Receptor_326	11	122	133	188	No
Receptor_327	28	122	150	188	No

Construction	Concentrations (ug/m3)			
	Ambient	Total	Threshold	Exceeds?
8	184	192	339	No
8	184	192	339	No
8	184	193	339	No
9	184	193	339	No
9	184	194	339	No
10	184	194	339	No
10	184	194	339	No
10	184	195	339	No
11	184	195	339	No
11	184	195	339	No
11	184	196	339	No
12	184	196	339	No
12	184	196	339	No
12	184	196	339	No
13	184	197	339	No
13	184	197	339	No
13	184	198	339	No
14	184	198	339	No
14	184	198	339	No
14	184	199	339	No
14	184	199	339	No
16	184	200	339	No
17	184	201	339	No
18	184	202	339	No
18	184	202	339	No
17	184	201	339	No
16	184	200	339	No
15	184	200	339	No
17	184	201	339	No
19	184	204	339	No
22	184	206	339	No
24	184	208	339	No
25	184	210	339	No
26	184	211	339	No
27	184	211	339	No
27	184	211	339	No
32	184	216	339	No
37	184	221	339	No
40	184	224	339	No
41	184	225	339	No
40	184	224	339	No
36	184	220	339	No
38	184	222	339	No
40	184	224	339	No
39	184	223	339	No
35	184	220	339	No
37	184	222	339	No
38	184	223	339	No
37	184	221	339	No
36	184	220	339	No
34	184	218	339	No
34	184	219	339	No
35	184	219	339	No
34	184	219	339	No
33	184	217	339	No
31	184	215	339	No
29	184	213	339	No
25	184	209	339	No
22	184	207	339	No
22	184	206	339	No
21	184	206	339	No
20	184	204	339	No
37	184	221	339	No

Maximum	39	122	162	188	No
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53	184	238	339	No
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**MSC North Project Draft EIR
Construction Dispersion**

NO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_1	1	26	27	57	No
Receptor_2	1	26	27	57	No
Receptor_3	1	26	27	57	No
Receptor_4	1	26	27	57	No
Receptor_5	1	26	27	57	No
Receptor_6	1	26	27	57	No
Receptor_7	1	26	27	57	No
Receptor_8	1	26	27	57	No
Receptor_9	1	26	27	57	No
Receptor_10	1	26	27	57	No
Receptor_11	1	26	27	57	No
Receptor_12	1	26	27	57	No
Receptor_13	1	26	27	57	No
Receptor_14	1	26	27	57	No
Receptor_15	1	26	27	57	No
Receptor_16	1	26	27	57	No
Receptor_17	1	26	27	57	No
Receptor_18	1	26	27	57	No
Receptor_19	1	26	27	57	No
Receptor_20	1	26	27	57	No
Receptor_21	1	26	27	57	No
Receptor_22	1	26	27	57	No
Receptor_23	1	26	27	57	No
Receptor_24	1	26	27	57	No
Receptor_25	1	26	27	57	No
Receptor_26	0	26	27	57	No
Receptor_27	0	26	27	57	No
Receptor_28	0	26	27	57	No
Receptor_29	0	26	27	57	No
Receptor_30	1	26	27	57	No
Receptor_31	1	26	27	57	No
Receptor_32	1	26	27	57	No
Receptor_33	1	26	27	57	No
Receptor_34	1	26	27	57	No
Receptor_35	1	26	27	57	No
Receptor_36	1	26	27	57	No
Receptor_37	1	26	27	57	No
Receptor_38	1	26	27	57	No
Receptor_39	1	26	27	57	No
Receptor_40	1	26	27	57	No
Receptor_41	1	26	27	57	No
Receptor_42	1	26	27	57	No
Receptor_43	1	26	27	57	No
Receptor_44	1	26	27	57	No
Receptor_45	1	26	27	57	No
Receptor_46	1	26	27	57	No
Receptor_47	1	26	27	57	No
Receptor_48	1	26	27	57	No
Receptor_49	1	26	27	57	No
Receptor_50	1	26	27	57	No
Receptor_51	1	26	27	57	No
Receptor_52	1	26	27	57	No
Receptor_53	1	26	27	57	No
Receptor_54	1	26	27	57	No
Receptor_55	1	26	27	57	No
Receptor_56	1	26	27	57	No
Receptor_57	1	26	27	57	No
Receptor_58	1	26	27	57	No
Receptor_59	1	26	27	57	No
Receptor_60	1	26	27	57	No
Receptor_61	1	26	28	57	No
Receptor_62	1	26	28	57	No
Receptor_63	1	26	28	57	No
Receptor_64	2	26	28	57	No
Receptor_65	2	26	28	57	No
Receptor_66	2	26	28	57	No

**MSC North Project Draft EIR
Construction Dispersion**

NO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_67	2	26	28	57	No
Receptor_68	2	26	28	57	No
Receptor_69	2	26	29	57	No
Receptor_70	2	26	28	57	No
Receptor_71	2	26	28	57	No
Receptor_72	2	26	28	57	No
Receptor_73	2	26	28	57	No
Receptor_74	2	26	28	57	No
Receptor_75	2	26	28	57	No
Receptor_76	2	26	28	57	No
Receptor_77	2	26	28	57	No
Receptor_78	2	26	28	57	No
Receptor_79	2	26	28	57	No
Receptor_80	2	26	28	57	No
Receptor_81	2	26	29	57	No
Receptor_82	2	26	28	57	No
Receptor_83	2	26	28	57	No
Receptor_84	2	26	28	57	No
Receptor_85	2	26	28	57	No
Receptor_86	2	26	28	57	No
Receptor_87	1	26	28	57	No
Receptor_88	1	26	28	57	No
Receptor_89	1	26	28	57	No
Receptor_90	1	26	27	57	No
Receptor_91	1	26	27	57	No
Receptor_92	1	26	27	57	No
Receptor_93	1	26	27	57	No
Receptor_94	1	26	27	57	No
Receptor_95	1	26	27	57	No
Receptor_96	1	26	27	57	No
Receptor_97	1	26	27	57	No
Receptor_98	1	26	27	57	No
Receptor_99	1	26	27	57	No
Receptor_100	1	26	28	57	No
Receptor_101	1	26	27	57	No
Receptor_102	1	26	27	57	No
Receptor_103	1	26	27	57	No
Receptor_104	1	26	27	57	No
Receptor_105	1	26	27	57	No
Receptor_106	1	26	27	57	No
Receptor_107	1	26	27	57	No
Receptor_108	1	26	27	57	No
Receptor_109	1	26	27	57	No
Receptor_110	1	26	27	57	No
Receptor_111	1	26	27	57	No
Receptor_112	1	26	27	57	No
Receptor_113	1	26	27	57	No
Receptor_114	1	26	27	57	No
Receptor_115	1	26	27	57	No
Receptor_116	1	26	27	57	No
Receptor_117	1	26	27	57	No
Receptor_118	1	26	27	57	No
Receptor_119	1	26	27	57	No
Receptor_120	1	26	27	57	No
Receptor_121	1	26	27	57	No
Receptor_122	1	26	27	57	No
Receptor_123	1	26	27	57	No
Receptor_124	1	26	27	57	No
Receptor_125	1	26	27	57	No
Receptor_126	1	26	27	57	No
Receptor_127	1	26	27	57	No
Receptor_128	1	26	27	57	No
Receptor_129	1	26	27	57	No
Receptor_130	1	26	27	57	No
Receptor_131	1	26	27	57	No
Receptor_132	1	26	27	57	No

**MSC North Project Draft EIR
Construction Dispersion**

NO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_133	1	26	27	57	No
Receptor_134	1	26	27	57	No
Receptor_135	1	26	27	57	No
Receptor_136	1	26	27	57	No
Receptor_137	1	26	27	57	No
Receptor_138	1	26	27	57	No
Receptor_139	1	26	27	57	No
Receptor_140	1	26	27	57	No
Receptor_141	1	26	27	57	No
Receptor_142	1	26	27	57	No
Receptor_143	1	26	27	57	No
Receptor_144	1	26	27	57	No
Receptor_145	1	26	27	57	No
Receptor_146	0	26	27	57	No
Receptor_147	0	26	27	57	No
Receptor_148	0	26	27	57	No
Receptor_149	0	26	27	57	No
Receptor_150	0	26	27	57	No
Receptor_151	0	26	27	57	No
Receptor_152	0	26	27	57	No
Receptor_153	0	26	27	57	No
Receptor_154	0	26	27	57	No
Receptor_155	0	26	27	57	No
Receptor_156	0	26	27	57	No
Receptor_157	0	26	27	57	No
Receptor_158	0	26	27	57	No
Receptor_159	1	26	27	57	No
Receptor_160	1	26	27	57	No
Receptor_161	1	26	27	57	No
Receptor_162	1	26	27	57	No
Receptor_163	1	26	27	57	No
Receptor_164	1	26	27	57	No
Receptor_165	1	26	27	57	No
Receptor_166	1	26	27	57	No
Receptor_167	1	26	27	57	No
Receptor_168	1	26	27	57	No
Receptor_169	1	26	27	57	No
Receptor_170	1	26	27	57	No
Receptor_171	1	26	27	57	No
Receptor_172	1	26	27	57	No
Receptor_173	1	26	27	57	No
Receptor_174	1	26	27	57	No
Receptor_175	1	26	27	57	No
Receptor_176	1	26	27	57	No
Receptor_177	1	26	27	57	No
Receptor_178	1	26	27	57	No
Receptor_179	1	26	27	57	No
Receptor_180	1	26	27	57	No
Receptor_181	1	26	27	57	No
Receptor_182	1	26	27	57	No
Receptor_183	0	26	27	57	No
Receptor_184	0	26	27	57	No
Receptor_185	0	26	27	57	No
Receptor_186	0	26	27	57	No
Receptor_187	0	26	27	57	No
Receptor_188	0	26	27	57	No
Receptor_189	0	26	27	57	No
Receptor_190	0	26	27	57	No
Receptor_191	0	26	27	57	No
Receptor_192	0	26	27	57	No
Receptor_193	0	26	27	57	No
Receptor_194	0	26	27	57	No
Receptor_195	0	26	27	57	No
Receptor_196	0	26	27	57	No
Receptor_197	0	26	27	57	No
Receptor_198	0	26	27	57	No

**MSC North Project Draft EIR
Construction Dispersion**

NO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_199	0	26	27	57	No
Receptor_200	0	26	27	57	No
Receptor_201	0	26	27	57	No
Receptor_202	0	26	27	57	No
Receptor_203	0	26	27	57	No
Receptor_204	0	26	27	57	No
Receptor_205	0	26	27	57	No
Receptor_206	0	26	27	57	No
Receptor_207	0	26	27	57	No
Receptor_208	0	26	27	57	No
Receptor_209	0	26	27	57	No
Receptor_210	0	26	27	57	No
Receptor_211	0	26	27	57	No
Receptor_212	0	26	27	57	No
Receptor_213	0	26	27	57	No
Receptor_214	0	26	27	57	No
Receptor_215	0	26	27	57	No
Receptor_216	0	26	27	57	No
Receptor_217	0	26	27	57	No
Receptor_218	0	26	27	57	No
Receptor_219	0	26	27	57	No
Receptor_220	0	26	27	57	No
Receptor_221	0	26	27	57	No
Receptor_222	0	26	27	57	No
Receptor_223	0	26	27	57	No
Receptor_224	0	26	27	57	No
Receptor_225	0	26	27	57	No
Receptor_226	0	26	27	57	No
Receptor_227	0	26	27	57	No
Receptor_228	0	26	27	57	No
Receptor_229	0	26	27	57	No
Receptor_230	0	26	27	57	No
Receptor_231	0	26	27	57	No
Receptor_232	0	26	27	57	No
Receptor_233	0	26	27	57	No
Receptor_234	0	26	27	57	No
Receptor_235	0	26	27	57	No
Receptor_236	0	26	27	57	No
Receptor_237	0	26	27	57	No
Receptor_238	0	26	27	57	No
Receptor_239	0	26	27	57	No
Receptor_240	0	26	27	57	No
Receptor_241	0	26	27	57	No
Receptor_242	0	26	27	57	No
Receptor_243	0	26	27	57	No
Receptor_244	0	26	27	57	No
Receptor_245	0	26	27	57	No
Receptor_246	0	26	27	57	No
Receptor_247	0	26	27	57	No
Receptor_248	0	26	27	57	No
Receptor_249	0	26	27	57	No
Receptor_250	0	26	27	57	No
Receptor_251	0	26	27	57	No
Receptor_252	0	26	27	57	No
Receptor_253	0	26	27	57	No
Receptor_254	0	26	27	57	No
Receptor_255	0	26	27	57	No
Receptor_256	0	26	27	57	No
Receptor_257	0	26	27	57	No
Receptor_258	0	26	27	57	No
Receptor_259	0	26	27	57	No
Receptor_260	0	26	27	57	No
Receptor_261	0	26	27	57	No
Receptor_262	0	26	27	57	No
Receptor_263	0	26	27	57	No
Receptor_264	0	26	27	57	No

**MSC North Project Draft EIR
Construction Dispersion**

NO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_265	0	26	27	57	No
Receptor_266	0	26	27	57	No
Receptor_267	0	26	27	57	No
Receptor_268	0	26	27	57	No
Receptor_269	0	26	27	57	No
Receptor_270	0	26	27	57	No
Receptor_271	0	26	27	57	No
Receptor_272	0	26	27	57	No
Receptor_273	0	26	27	57	No
Receptor_274	0	26	27	57	No
Receptor_275	0	26	27	57	No
Receptor_276	0	26	27	57	No
Receptor_277	0	26	27	57	No
Receptor_278	0	26	27	57	No
Receptor_279	0	26	27	57	No
Receptor_280	0	26	27	57	No
Receptor_281	0	26	27	57	No
Receptor_282	0	26	27	57	No
Receptor_283	0	26	27	57	No
Receptor_284	1	26	27	57	No
Receptor_285	1	26	27	57	No
Receptor_286	1	26	27	57	No
Receptor_287	1	26	27	57	No
Receptor_288	1	26	27	57	No
Receptor_289	1	26	27	57	No
Receptor_290	1	26	27	57	No
Receptor_291	1	26	27	57	No
Receptor_292	1	26	27	57	No
Receptor_293	1	26	27	57	No
Receptor_294	1	26	27	57	No
Receptor_295	1	26	27	57	No
Receptor_296	1	26	27	57	No
Receptor_297	1	26	27	57	No
Receptor_298	1	26	27	57	No
Receptor_299	1	26	27	57	No
Receptor_300	1	26	27	57	No
Receptor_301	1	26	28	57	No
Receptor_302	1	26	28	57	No
Receptor_303	1	26	28	57	No
Receptor_304	1	26	28	57	No
Receptor_305	1	26	28	57	No
Receptor_306	2	26	28	57	No
Receptor_307	2	26	28	57	No
Receptor_308	2	26	28	57	No
Receptor_309	2	26	28	57	No
Receptor_310	2	26	28	57	No
Receptor_311	2	26	28	57	No
Receptor_312	2	26	28	57	No
Receptor_313	2	26	28	57	No
Receptor_314	1	26	28	57	No
Receptor_315	1	26	28	57	No
Receptor_316	1	26	28	57	No
Receptor_317	1	26	28	57	No
Receptor_318	1	26	28	57	No
Receptor_319	1	26	27	57	No
Receptor_320	1	26	27	57	No
Receptor_321	1	26	27	57	No
Receptor_322	1	26	27	57	No
Receptor_323	1	26	27	57	No
Receptor_324	1	26	27	57	No
Receptor_325	1	26	27	57	No
Receptor_326	1	26	27	57	No
Receptor_327	2	26	28	57	No
Maximum	2	26	29	57	No

**MSC North Project Draft EIR
Construction Dispersion**

SO2 1-Hr (NAAQS)

SO2 1-Hr (CAAQS)

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_1	0.05	21	21	196	No
Receptor_2	0.05	21	21	196	No
Receptor_3	0.06	21	21	196	No
Receptor_4	0.06	21	21	196	No
Receptor_5	0.06	21	21	196	No
Receptor_6	0.06	21	21	196	No
Receptor_7	0.06	21	21	196	No
Receptor_8	0.06	21	21	196	No
Receptor_9	0.06	21	21	196	No
Receptor_10	0.05	21	21	196	No
Receptor_11	0.05	21	21	196	No
Receptor_12	0.05	21	21	196	No
Receptor_13	0.06	21	21	196	No
Receptor_14	0.06	21	21	196	No
Receptor_15	0.06	21	21	196	No
Receptor_16	0.05	21	21	196	No
Receptor_17	0.05	21	21	196	No
Receptor_18	0.05	21	21	196	No
Receptor_19	0.05	21	21	196	No
Receptor_20	0.05	21	21	196	No
Receptor_21	0.04	21	21	196	No
Receptor_22	0.04	21	21	196	No
Receptor_23	0.04	21	21	196	No
Receptor_24	0.04	21	21	196	No
Receptor_25	0.04	21	21	196	No
Receptor_26	0.03	21	21	196	No
Receptor_27	0.03	21	21	196	No
Receptor_28	0.03	21	21	196	No
Receptor_29	0.03	21	21	196	No
Receptor_30	0.04	21	21	196	No
Receptor_31	0.04	21	21	196	No
Receptor_32	0.03	21	21	196	No
Receptor_33	0.03	21	21	196	No
Receptor_34	0.04	21	21	196	No
Receptor_35	0.03	21	21	196	No
Receptor_36	0.04	21	21	196	No
Receptor_37	0.04	21	21	196	No
Receptor_38	0.05	21	21	196	No
Receptor_39	0.05	21	21	196	No
Receptor_40	0.05	21	21	196	No
Receptor_41	0.05	21	21	196	No
Receptor_42	0.05	21	21	196	No
Receptor_43	0.05	21	21	196	No
Receptor_44	0.05	21	21	196	No
Receptor_45	0.04	21	21	196	No
Receptor_46	0.05	21	21	196	No
Receptor_47	0.05	21	21	196	No
Receptor_48	0.05	21	21	196	No
Receptor_49	0.06	21	21	196	No
Receptor_50	0.05	21	21	196	No
Receptor_51	0.06	21	21	196	No
Receptor_52	0.06	21	21	196	No
Receptor_53	0.06	21	21	196	No
Receptor_54	0.06	21	21	196	No
Receptor_55	0.06	21	21	196	No
Receptor_56	0.05	21	21	196	No
Receptor_57	0.06	21	21	196	No
Receptor_58	0.06	21	21	196	No
Receptor_59	0.07	21	21	196	No
Receptor_60	0.07	21	21	196	No
Receptor_61	0.07	21	21	196	No
Receptor_62	0.07	21	21	196	No
Receptor_63	0.08	21	21	196	No
Receptor_64	0.09	21	21	196	No
Receptor_65	0.09	21	21	196	No
Receptor_66	0.10	21	21	196	No

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_1	0.06	68	68	655	No
Receptor_2	0.06	68	68	655	No
Receptor_3	0.06	68	68	655	No
Receptor_4	0.07	68	68	655	No
Receptor_5	0.07	68	68	655	No
Receptor_6	0.06	68	68	655	No
Receptor_7	0.07	68	68	655	No
Receptor_8	0.07	68	68	655	No
Receptor_9	0.07	68	68	655	No
Receptor_10	0.06	68	68	655	No
Receptor_11	0.06	68	68	655	No
Receptor_12	0.06	68	68	655	No
Receptor_13	0.06	68	68	655	No
Receptor_14	0.06	68	68	655	No
Receptor_15	0.06	68	68	655	No
Receptor_16	0.06	68	68	655	No
Receptor_17	0.05	68	68	655	No
Receptor_18	0.05	68	68	655	No
Receptor_19	0.05	68	68	655	No
Receptor_20	0.06	68	68	655	No
Receptor_21	0.06	68	68	655	No
Receptor_22	0.06	68	68	655	No
Receptor_23	0.05	68	68	655	No
Receptor_24	0.05	68	68	655	No
Receptor_25	0.04	68	68	655	No
Receptor_26	0.04	68	68	655	No
Receptor_27	0.04	68	68	655	No
Receptor_28	0.04	68	68	655	No
Receptor_29	0.04	68	68	655	No
Receptor_30	0.04	68	68	655	No
Receptor_31	0.04	68	68	655	No
Receptor_32	0.04	68	68	655	No
Receptor_33	0.05	68	68	655	No
Receptor_34	0.05	68	68	655	No
Receptor_35	0.05	68	68	655	No
Receptor_36	0.06	68	68	655	No
Receptor_37	0.06	68	68	655	No
Receptor_38	0.06	68	68	655	No
Receptor_39	0.06	68	68	655	No
Receptor_40	0.06	68	68	655	No
Receptor_41	0.07	68	68	655	No
Receptor_42	0.07	68	68	655	No
Receptor_43	0.07	68	68	655	No
Receptor_44	0.08	68	68	655	No
Receptor_45	0.08	68	68	655	No
Receptor_46	0.08	68	68	655	No
Receptor_47	0.09	68	68	655	No
Receptor_48	0.09	68	68	655	No
Receptor_49	0.09	68	68	655	No
Receptor_50	0.10	68	68	655	No
Receptor_51	0.10	68	68	655	No
Receptor_52	0.09	68	68	655	No
Receptor_53	0.08	68	68	655	No
Receptor_54	0.07	68	68	655	No
Receptor_55	0.07	68	68	655	No
Receptor_56	0.06	68	68	655	No
Receptor_57	0.07	68	68	655	No
Receptor_58	0.07	68	68	655	No
Receptor_59	0.07	68	68	655	No
Receptor_60	0.08	68	68	655	No
Receptor_61	0.08	68	68	655	No
Receptor_62	0.09	68	68	655	No
Receptor_63	0.09	68	68	655	No
Receptor_64	0.10	68	68	655	No
Receptor_65	0.10	68	68	655	No
Receptor_66	0.10	68	68	655	No

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SO2 1-Hr (NAAQS)

SO2 1-Hr (CAAQS)

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_67	0.10	21	21	196	No
Receptor_68	0.11	21	21	196	No
Receptor_69	0.11	21	21	196	No
Receptor_70	0.12	21	21	196	No
Receptor_71	0.11	21	21	196	No
Receptor_72	0.12	21	21	196	No
Receptor_73	0.11	21	21	196	No
Receptor_74	0.11	21	21	196	No
Receptor_75	0.11	21	21	196	No
Receptor_76	0.12	21	21	196	No
Receptor_77	0.12	21	21	196	No
Receptor_78	0.12	21	21	196	No
Receptor_79	0.13	21	21	196	No
Receptor_80	0.15	21	21	196	No
Receptor_81	0.16	21	21	196	No
Receptor_82	0.15	21	21	196	No
Receptor_83	0.15	21	21	196	No
Receptor_84	0.13	21	21	196	No
Receptor_85	0.12	21	21	196	No
Receptor_86	0.11	21	21	196	No
Receptor_87	0.11	21	21	196	No
Receptor_88	0.10	21	21	196	No
Receptor_89	0.10	21	21	196	No
Receptor_90	0.09	21	21	196	No
Receptor_91	0.09	21	21	196	No
Receptor_92	0.08	21	21	196	No
Receptor_93	0.08	21	21	196	No
Receptor_94	0.08	21	21	196	No
Receptor_95	0.08	21	21	196	No
Receptor_96	0.08	21	21	196	No
Receptor_97	0.08	21	21	196	No
Receptor_98	0.08	21	21	196	No
Receptor_99	0.09	21	21	196	No
Receptor_100	0.10	21	21	196	No
Receptor_101	0.10	21	21	196	No
Receptor_102	0.10	21	21	196	No
Receptor_103	0.09	21	21	196	No
Receptor_104	0.08	21	21	196	No
Receptor_105	0.08	21	21	196	No
Receptor_106	0.09	21	21	196	No
Receptor_107	0.09	21	21	196	No
Receptor_108	0.09	21	21	196	No
Receptor_109	0.09	21	21	196	No
Receptor_110	0.09	21	21	196	No
Receptor_111	0.08	21	21	196	No
Receptor_112	0.08	21	21	196	No
Receptor_113	0.07	21	21	196	No
Receptor_114	0.07	21	21	196	No
Receptor_115	0.07	21	21	196	No
Receptor_116	0.07	21	21	196	No
Receptor_117	0.07	21	21	196	No
Receptor_118	0.08	21	21	196	No
Receptor_119	0.08	21	21	196	No
Receptor_120	0.09	21	21	196	No
Receptor_121	0.09	21	21	196	No
Receptor_122	0.09	21	21	196	No
Receptor_123	0.08	21	21	196	No
Receptor_124	0.08	21	21	196	No
Receptor_125	0.08	21	21	196	No
Receptor_126	0.08	21	21	196	No
Receptor_127	0.08	21	21	196	No
Receptor_128	0.07	21	21	196	No
Receptor_129	0.07	21	21	196	No
Receptor_130	0.07	21	21	196	No
Receptor_131	0.06	21	21	196	No
Receptor_132	0.06	21	21	196	No

	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
	0.11	68	68	655	No
	0.12	68	68	655	No
	0.13	68	68	655	No
	0.13	68	68	655	No
	0.13	68	68	655	No
	0.13	68	68	655	No
	0.13	68	68	655	No
	0.13	68	68	655	No
	0.12	68	68	655	No
	0.14	68	68	655	No
	0.13	68	68	655	No
	0.13	68	68	655	No
	0.15	68	68	655	No
	0.17	68	68	655	No
	0.18	68	68	655	No
	0.17	68	68	655	No
	0.16	68	68	655	No
	0.15	68	68	655	No
	0.14	68	68	655	No
	0.12	68	68	655	No
	0.12	68	68	655	No
	0.12	68	68	655	No
	0.12	68	68	655	No
	0.11	68	68	655	No
	0.10	68	68	655	No
	0.10	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.08	68	68	655	No
	0.09	68	68	655	No
	0.10	68	68	655	No
	0.10	68	68	655	No
	0.11	68	68	655	No
	0.11	68	68	655	No
	0.10	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.10	68	68	655	No
	0.11	68	68	655	No
	0.10	68	68	655	No
	0.10	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.08	68	68	655	No
	0.08	68	68	655	No
	0.08	68	68	655	No
	0.07	68	68	655	No
	0.07	68	68	655	No
	0.08	68	68	655	No
	0.08	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.09	68	68	655	No
	0.08	68	68	655	No
	0.08	68	68	655	No
	0.08	68	68	655	No
	0.07	68	68	655	No
	0.07	68	68	655	No
	0.06	68	68	655	No

**MSC North Project Draft EIR
Construction Dispersion**

SO2 1-Hr (NAAQS)

SO2 1-Hr (CAAQS)

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_133	0.06	21	21	196	No
Receptor_134	0.05	21	21	196	No
Receptor_135	0.05	21	21	196	No
Receptor_136	0.05	21	21	196	No
Receptor_137	0.05	21	21	196	No
Receptor_138	0.05	21	21	196	No
Receptor_139	0.05	21	21	196	No
Receptor_140	0.05	21	21	196	No
Receptor_141	0.05	21	21	196	No
Receptor_142	0.05	21	21	196	No
Receptor_143	0.05	21	21	196	No
Receptor_144	0.05	21	21	196	No
Receptor_145	0.05	21	21	196	No
Receptor_146	0.05	21	21	196	No
Receptor_147	0.05	21	21	196	No
Receptor_148	0.05	21	21	196	No
Receptor_149	0.04	21	21	196	No
Receptor_150	0.04	21	21	196	No
Receptor_151	0.04	21	21	196	No
Receptor_152	0.05	21	21	196	No
Receptor_153	0.05	21	21	196	No
Receptor_154	0.05	21	21	196	No
Receptor_155	0.05	21	21	196	No
Receptor_156	0.05	21	21	196	No
Receptor_157	0.05	21	21	196	No
Receptor_158	0.05	21	21	196	No
Receptor_159	0.05	21	21	196	No
Receptor_160	0.06	21	21	196	No
Receptor_161	0.06	21	21	196	No
Receptor_162	0.06	21	21	196	No
Receptor_163	0.06	21	21	196	No
Receptor_164	0.07	21	21	196	No
Receptor_165	0.07	21	21	196	No
Receptor_166	0.08	21	21	196	No
Receptor_167	0.08	21	21	196	No
Receptor_168	0.09	21	21	196	No
Receptor_169	0.10	21	21	196	No
Receptor_170	0.10	21	21	196	No
Receptor_171	0.10	21	21	196	No
Receptor_172	0.10	21	21	196	No
Receptor_173	0.10	21	21	196	No
Receptor_174	0.10	21	21	196	No
Receptor_175	0.09	21	21	196	No
Receptor_176	0.08	21	21	196	No
Receptor_177	0.08	21	21	196	No
Receptor_178	0.07	21	21	196	No
Receptor_179	0.07	21	21	196	No
Receptor_180	0.06	21	21	196	No
Receptor_181	0.06	21	21	196	No
Receptor_182	0.06	21	21	196	No
Receptor_183	0.05	21	21	196	No
Receptor_184	0.05	21	21	196	No
Receptor_185	0.05	21	21	196	No
Receptor_186	0.05	21	21	196	No
Receptor_187	0.04	21	21	196	No
Receptor_188	0.04	21	21	196	No
Receptor_189	0.04	21	21	196	No
Receptor_190	0.04	21	21	196	No
Receptor_191	0.04	21	21	196	No
Receptor_192	0.04	21	21	196	No
Receptor_193	0.04	21	21	196	No
Receptor_194	0.04	21	21	196	No
Receptor_195	0.04	21	21	196	No
Receptor_196	0.04	21	21	196	No
Receptor_197	0.04	21	21	196	No
Receptor_198	0.03	21	21	196	No

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_133	0.06	68	68	655	No
Receptor_134	0.06	68	68	655	No
Receptor_135	0.05	68	68	655	No
Receptor_136	0.05	68	68	655	No
Receptor_137	0.05	68	68	655	No
Receptor_138	0.05	68	68	655	No
Receptor_139	0.05	68	68	655	No
Receptor_140	0.05	68	68	655	No
Receptor_141	0.05	68	68	655	No
Receptor_142	0.05	68	68	655	No
Receptor_143	0.05	68	68	655	No
Receptor_144	0.05	68	68	655	No
Receptor_145	0.05	68	68	655	No
Receptor_146	0.05	68	68	655	No
Receptor_147	0.05	68	68	655	No
Receptor_148	0.05	68	68	655	No
Receptor_149	0.05	68	68	655	No
Receptor_150	0.05	68	68	655	No
Receptor_151	0.05	68	68	655	No
Receptor_152	0.05	68	68	655	No
Receptor_153	0.05	68	68	655	No
Receptor_154	0.05	68	68	655	No
Receptor_155	0.05	68	68	655	No
Receptor_156	0.05	68	68	655	No
Receptor_157	0.05	68	68	655	No
Receptor_158	0.05	68	68	655	No
Receptor_159	0.06	68	68	655	No
Receptor_160	0.06	68	68	655	No
Receptor_161	0.06	68	68	655	No
Receptor_162	0.07	68	68	655	No
Receptor_163	0.07	68	68	655	No
Receptor_164	0.07	68	68	655	No
Receptor_165	0.08	68	68	655	No
Receptor_166	0.08	68	68	655	No
Receptor_167	0.09	68	68	655	No
Receptor_168	0.10	68	68	655	No
Receptor_169	0.10	68	68	655	No
Receptor_170	0.10	68	68	655	No
Receptor_171	0.10	68	68	655	No
Receptor_172	0.11	68	68	655	No
Receptor_173	0.11	68	68	655	No
Receptor_174	0.10	68	68	655	No
Receptor_175	0.09	68	68	655	No
Receptor_176	0.09	68	68	655	No
Receptor_177	0.08	68	68	655	No
Receptor_178	0.07	68	68	655	No
Receptor_179	0.07	68	68	655	No
Receptor_180	0.07	68	68	655	No
Receptor_181	0.06	68	68	655	No
Receptor_182	0.06	68	68	655	No
Receptor_183	0.05	68	68	655	No
Receptor_184	0.05	68	68	655	No
Receptor_185	0.05	68	68	655	No
Receptor_186	0.05	68	68	655	No
Receptor_187	0.04	68	68	655	No
Receptor_188	0.04	68	68	655	No
Receptor_189	0.04	68	68	655	No
Receptor_190	0.04	68	68	655	No
Receptor_191	0.04	68	68	655	No
Receptor_192	0.04	68	68	655	No
Receptor_193	0.04	68	68	655	No
Receptor_194	0.04	68	68	655	No
Receptor_195	0.04	68	68	655	No
Receptor_196	0.04	68	68	655	No
Receptor_197	0.04	68	68	655	No
Receptor_198	0.04	68	68	655	No

Construction Dispersion

SO2 1-Hr (NAAQS)

SO2 1-Hr (CAAQS)

Receptor_ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_199	0.03	21	21	196	No
Receptor_200	0.03	21	21	196	No
Receptor_201	0.03	21	21	196	No
Receptor_202	0.03	21	21	196	No
Receptor_203	0.03	21	21	196	No
Receptor_204	0.03	21	21	196	No
Receptor_205	0.03	21	21	196	No
Receptor_206	0.03	21	21	196	No
Receptor_207	0.03	21	21	196	No
Receptor_208	0.03	21	21	196	No
Receptor_209	0.03	21	21	196	No
Receptor_210	0.03	21	21	196	No
Receptor_211	0.03	21	21	196	No
Receptor_212	0.03	21	21	196	No
Receptor_213	0.03	21	21	196	No
Receptor_214	0.03	21	21	196	No
Receptor_215	0.03	21	21	196	No
Receptor_216	0.03	21	21	196	No
Receptor_217	0.03	21	21	196	No
Receptor_218	0.03	21	21	196	No
Receptor_219	0.03	21	21	196	No
Receptor_220	0.03	21	21	196	No
Receptor_221	0.03	21	21	196	No
Receptor_222	0.03	21	21	196	No
Receptor_223	0.03	21	21	196	No
Receptor_224	0.04	21	21	196	No
Receptor_225	0.04	21	21	196	No
Receptor_226	0.04	21	21	196	No
Receptor_227	0.04	21	21	196	No
Receptor_228	0.04	21	21	196	No
Receptor_229	0.04	21	21	196	No
Receptor_230	0.04	21	21	196	No
Receptor_231	0.04	21	21	196	No
Receptor_232	0.04	21	21	196	No
Receptor_233	0.04	21	21	196	No
Receptor_234	0.04	21	21	196	No
Receptor_235	0.04	21	21	196	No
Receptor_236	0.04	21	21	196	No
Receptor_237	0.04	21	21	196	No
Receptor_238	0.04	21	21	196	No
Receptor_239	0.03	21	21	196	No
Receptor_240	0.03	21	21	196	No
Receptor_241	0.03	21	21	196	No
Receptor_242	0.03	21	21	196	No
Receptor_243	0.03	21	21	196	No
Receptor_244	0.03	21	21	196	No
Receptor_245	0.03	21	21	196	No
Receptor_246	0.03	21	21	196	No
Receptor_247	0.03	21	21	196	No
Receptor_248	0.03	21	21	196	No
Receptor_249	0.02	21	21	196	No
Receptor_250	0.02	21	21	196	No
Receptor_251	0.02	21	21	196	No
Receptor_252	0.02	21	21	196	No
Receptor_253	0.02	21	21	196	No
Receptor_254	0.03	21	21	196	No
Receptor_255	0.03	21	21	196	No
Receptor_256	0.03	21	21	196	No
Receptor_257	0.03	21	21	196	No
Receptor_258	0.03	21	21	196	No
Receptor_259	0.03	21	21	196	No
Receptor_260	0.03	21	21	196	No
Receptor_261	0.03	21	21	196	No
Receptor_262	0.03	21	21	196	No
Receptor_263	0.03	21	21	196	No
Receptor_264	0.03	21	21	196	No

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SO2 1-Hr (NAAQS)

SO2 1-Hr (CAAQS)

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_265	0.03	21	21	196	No
Receptor_266	0.03	21	21	196	No
Receptor_267	0.03	21	21	196	No
Receptor_268	0.03	21	21	196	No
Receptor_269	0.03	21	21	196	No
Receptor_270	0.03	21	21	196	No
Receptor_271	0.03	21	21	196	No
Receptor_272	0.03	21	21	196	No
Receptor_273	0.03	21	21	196	No
Receptor_274	0.03	21	21	196	No
Receptor_275	0.04	21	21	196	No
Receptor_276	0.04	21	21	196	No
Receptor_277	0.04	21	21	196	No
Receptor_278	0.04	21	21	196	No
Receptor_279	0.04	21	21	196	No
Receptor_280	0.05	21	21	196	No
Receptor_281	0.05	21	21	196	No
Receptor_282	0.05	21	21	196	No
Receptor_283	0.05	21	21	196	No
Receptor_284	0.05	21	21	196	No
Receptor_285	0.05	21	21	196	No
Receptor_286	0.06	21	21	196	No
Receptor_287	0.06	21	21	196	No
Receptor_288	0.06	21	21	196	No
Receptor_289	0.07	21	21	196	No
Receptor_290	0.06	21	21	196	No
Receptor_291	0.07	21	21	196	No
Receptor_292	0.06	21	21	196	No
Receptor_293	0.07	21	21	196	No
Receptor_294	0.07	21	21	196	No
Receptor_295	0.08	21	21	196	No
Receptor_296	0.08	21	21	196	No
Receptor_297	0.08	21	21	196	No
Receptor_298	0.09	21	21	196	No
Receptor_299	0.09	21	21	196	No
Receptor_300	0.10	21	21	196	No
Receptor_301	0.10	21	21	196	No
Receptor_302	0.11	21	21	196	No
Receptor_303	0.11	21	21	196	No
Receptor_304	0.12	21	21	196	No
Receptor_305	0.12	21	21	196	No
Receptor_306	0.12	21	21	196	No
Receptor_307	0.12	21	21	196	No
Receptor_308	0.13	21	21	196	No
Receptor_309	0.13	21	21	196	No
Receptor_310	0.14	21	21	196	No
Receptor_311	0.13	21	21	196	No
Receptor_312	0.12	21	21	196	No
Receptor_313	0.12	21	21	196	No
Receptor_314	0.11	21	21	196	No
Receptor_315	0.12	21	21	196	No
Receptor_316	0.11	21	21	196	No
Receptor_317	0.11	21	21	196	No
Receptor_318	0.10	21	21	196	No
Receptor_319	0.09	21	21	196	No
Receptor_320	0.08	21	21	196	No
Receptor_321	0.07	21	21	196	No
Receptor_322	0.06	21	21	196	No
Receptor_323	0.06	21	21	196	No
Receptor_324	0.06	21	21	196	No
Receptor_325	0.05	21	21	196	No
Receptor_326	0.05	21	21	196	No
Receptor_327	0.19	21	21	196	No

Maximum	0.19	21	21	196	No
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Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_265	0.03	68	68	655	No
Receptor_266	0.03	68	68	655	No
Receptor_267	0.03	68	68	655	No
Receptor_268	0.03	68	68	655	No
Receptor_269	0.03	68	68	655	No
Receptor_270	0.03	68	68	655	No
Receptor_271	0.04	68	68	655	No
Receptor_272	0.04	68	68	655	No
Receptor_273	0.04	68	68	655	No
Receptor_274	0.04	68	68	655	No
Receptor_275	0.04	68	68	655	No
Receptor_276	0.05	68	68	655	No
Receptor_277	0.05	68	68	655	No
Receptor_278	0.05	68	68	655	No
Receptor_279	0.05	68	68	655	No
Receptor_280	0.05	68	68	655	No
Receptor_281	0.05	68	68	655	No
Receptor_282	0.05	68	68	655	No
Receptor_283	0.05	68	68	655	No
Receptor_284	0.06	68	68	655	No
Receptor_285	0.06	68	68	655	No
Receptor_286	0.06	68	68	655	No
Receptor_287	0.07	68	68	655	No
Receptor_288	0.07	68	68	655	No
Receptor_289	0.07	68	68	655	No
Receptor_290	0.07	68	68	655	No
Receptor_291	0.07	68	68	655	No
Receptor_292	0.08	68	68	655	No
Receptor_293	0.08	68	68	655	No
Receptor_294	0.09	68	68	655	No
Receptor_295	0.09	68	68	655	No
Receptor_296	0.09	68	68	655	No
Receptor_297	0.09	68	68	655	No
Receptor_298	0.10	68	68	655	No
Receptor_299	0.11	68	68	655	No
Receptor_300	0.11	68	68	655	No
Receptor_301	0.12	68	68	655	No
Receptor_302	0.12	68	68	655	No
Receptor_303	0.13	68	68	655	No
Receptor_304	0.12	68	68	655	No
Receptor_305	0.13	68	68	655	No
Receptor_306	0.13	68	68	655	No
Receptor_307	0.13	68	68	655	No
Receptor_308	0.13	68	68	655	No
Receptor_309	0.13	68	68	655	No
Receptor_310	0.14	68	68	655	No
Receptor_311	0.14	68	68	655	No
Receptor_312	0.13	68	68	655	No
Receptor_313	0.12	68	68	655	No
Receptor_314	0.13	68	68	655	No
Receptor_315	0.12	68	68	655	No
Receptor_316	0.12	68	68	655	No
Receptor_317	0.11	68	68	655	No
Receptor_318	0.11	68	68	655	No
Receptor_319	0.10	68	68	655	No
Receptor_320	0.09	68	68	655	No
Receptor_321	0.08	68	68	655	No
Receptor_322	0.07	68	68	655	No
Receptor_323	0.07	68	68	655	No
Receptor_324	0.07	68	68	655	No
Receptor_325	0.06	68	68	655	No
Receptor_326	0.06	68	68	655	No
Receptor_327	0.19	68	68	655	No

Maximum	0.19	68	68	655	No
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**MSC North Project Draft EIR
Construction Dispersion**

SO2 3-Hr

SO2 24-Hr

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_1	0.05	39	39	1,300	No
Receptor_2	0.05	39	39	1,300	No
Receptor_3	0.05	39	39	1,300	No
Receptor_4	0.05	39	39	1,300	No
Receptor_5	0.06	39	39	1,300	No
Receptor_6	0.06	39	39	1,300	No
Receptor_7	0.06	39	39	1,300	No
Receptor_8	0.05	39	39	1,300	No
Receptor_9	0.05	39	39	1,300	No
Receptor_10	0.05	39	39	1,300	No
Receptor_11	0.05	39	39	1,300	No
Receptor_12	0.05	39	39	1,300	No
Receptor_13	0.05	39	39	1,300	No
Receptor_14	0.05	39	39	1,300	No
Receptor_15	0.05	39	39	1,300	No
Receptor_16	0.05	39	39	1,300	No
Receptor_17	0.04	39	39	1,300	No
Receptor_18	0.04	39	39	1,300	No
Receptor_19	0.04	39	39	1,300	No
Receptor_20	0.04	39	39	1,300	No
Receptor_21	0.03	39	39	1,300	No
Receptor_22	0.03	39	39	1,300	No
Receptor_23	0.03	39	39	1,300	No
Receptor_24	0.02	39	39	1,300	No
Receptor_25	0.02	39	39	1,300	No
Receptor_26	0.02	39	39	1,300	No
Receptor_27	0.02	39	39	1,300	No
Receptor_28	0.02	39	39	1,300	No
Receptor_29	0.02	39	39	1,300	No
Receptor_30	0.02	39	39	1,300	No
Receptor_31	0.02	39	39	1,300	No
Receptor_32	0.02	39	39	1,300	No
Receptor_33	0.03	39	39	1,300	No
Receptor_34	0.03	39	39	1,300	No
Receptor_35	0.03	39	39	1,300	No
Receptor_36	0.03	39	39	1,300	No
Receptor_37	0.04	39	39	1,300	No
Receptor_38	0.04	39	39	1,300	No
Receptor_39	0.04	39	39	1,300	No
Receptor_40	0.05	39	39	1,300	No
Receptor_41	0.05	39	39	1,300	No
Receptor_42	0.05	39	39	1,300	No
Receptor_43	0.05	39	39	1,300	No
Receptor_44	0.05	39	39	1,300	No
Receptor_45	0.05	39	39	1,300	No
Receptor_46	0.05	39	39	1,300	No
Receptor_47	0.06	39	39	1,300	No
Receptor_48	0.05	39	39	1,300	No
Receptor_49	0.06	39	39	1,300	No
Receptor_50	0.06	39	39	1,300	No
Receptor_51	0.05	39	39	1,300	No
Receptor_52	0.05	39	39	1,300	No
Receptor_53	0.04	39	39	1,300	No
Receptor_54	0.04	39	39	1,300	No
Receptor_55	0.04	39	39	1,300	No
Receptor_56	0.04	39	39	1,300	No
Receptor_57	0.04	39	39	1,300	No
Receptor_58	0.04	39	39	1,300	No
Receptor_59	0.04	39	39	1,300	No
Receptor_60	0.05	39	39	1,300	No
Receptor_61	0.05	39	39	1,300	No
Receptor_62	0.05	39	39	1,300	No
Receptor_63	0.06	39	39	1,300	No
Receptor_64	0.06	39	39	1,300	No
Receptor_65	0.06	39	39	1,300	No
Receptor_66	0.07	39	39	1,300	No

[illegible]

**MSC North Project Draft EIR
Construction Dispersion**

SO2 3-Hr

SO2 24-Hr

Receptor ID	Concentrations (ug/m3)					Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_67	0.08	39	39	1,300	No	0.03	16	16	105	No
Receptor_68	0.09	39	39	1,300	No	0.03	16	16	105	No
Receptor_69	0.09	39	39	1,300	No	0.03	16	16	105	No
Receptor_70	0.10	39	39	1,300	No	0.03	16	16	105	No
Receptor_71	0.10	39	39	1,300	No	0.03	16	16	105	No
Receptor_72	0.10	39	39	1,300	No	0.03	16	16	105	No
Receptor_73	0.10	39	39	1,300	No	0.04	16	16	105	No
Receptor_74	0.11	39	39	1,300	No	0.04	16	16	105	No
Receptor_75	0.11	39	39	1,300	No	0.03	16	16	105	No
Receptor_76	0.12	39	39	1,300	No	0.04	16	16	105	No
Receptor_77	0.11	39	39	1,300	No	0.04	16	16	105	No
Receptor_78	0.10	39	39	1,300	No	0.03	16	16	105	No
Receptor_79	0.11	39	39	1,300	No	0.04	16	16	105	No
Receptor_80	0.11	39	39	1,300	No	0.04	16	16	105	No
Receptor_81	0.12	39	39	1,300	No	0.04	16	16	105	No
Receptor_82	0.12	39	39	1,300	No	0.04	16	16	105	No
Receptor_83	0.11	39	39	1,300	No	0.03	16	16	105	No
Receptor_84	0.10	39	39	1,300	No	0.03	16	16	105	No
Receptor_85	0.09	39	39	1,300	No	0.03	16	16	105	No
Receptor_86	0.09	39	39	1,300	No	0.03	16	16	105	No
Receptor_87	0.07	39	39	1,300	No	0.03	16	16	105	No
Receptor_88	0.08	39	39	1,300	No	0.02	16	16	105	No
Receptor_89	0.08	39	39	1,300	No	0.02	16	16	105	No
Receptor_90	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_91	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_92	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_93	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_94	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_95	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_96	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_97	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_98	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_99	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_100	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_101	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_102	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_103	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_104	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_105	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_106	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_107	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_108	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_109	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_110	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_111	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_112	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_113	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_114	0.05	39	39	1,300	No	0.02	16	16	105	No
Receptor_115	0.05	39	39	1,300	No	0.02	16	16	105	No
Receptor_116	0.05	39	39	1,300	No	0.02	16	16	105	No
Receptor_117	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_118	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_119	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_120	0.07	39	39	1,300	No	0.03	16	16	105	No
Receptor_121	0.07	39	39	1,300	No	0.03	16	16	105	No
Receptor_122	0.07	39	39	1,300	No	0.03	16	16	105	No
Receptor_123	0.07	39	39	1,300	No	0.03	16	16	105	No
Receptor_124	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_125	0.08	39	39	1,300	No	0.03	16	16	105	No
Receptor_126	0.08	39	39	1,300	No	0.02	16	16	105	No
Receptor_127	0.07	39	39	1,300	No	0.02	16	16	105	No
Receptor_128	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_129	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_130	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_131	0.06	39	39	1,300	No	0.02	16	16	105	No
Receptor_132	0.06	39	39	1,300	No	0.02	16	16	105	No

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SO2 3-Hr

SO2 24-Hr

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_133	0.05	39	39	1,300	No
Receptor_134	0.05	39	39	1,300	No
Receptor_135	0.05	39	39	1,300	No
Receptor_136	0.04	39	39	1,300	No
Receptor_137	0.04	39	39	1,300	No
Receptor_138	0.05	39	39	1,300	No
Receptor_139	0.05	39	39	1,300	No
Receptor_140	0.05	39	39	1,300	No
Receptor_141	0.04	39	39	1,300	No
Receptor_142	0.04	39	39	1,300	No
Receptor_143	0.04	39	39	1,300	No
Receptor_144	0.04	39	39	1,300	No
Receptor_145	0.04	39	39	1,300	No
Receptor_146	0.04	39	39	1,300	No
Receptor_147	0.03	39	39	1,300	No
Receptor_148	0.04	39	39	1,300	No
Receptor_149	0.04	39	39	1,300	No
Receptor_150	0.04	39	39	1,300	No
Receptor_151	0.04	39	39	1,300	No
Receptor_152	0.04	39	39	1,300	No
Receptor_153	0.04	39	39	1,300	No
Receptor_154	0.04	39	39	1,300	No
Receptor_155	0.04	39	39	1,300	No
Receptor_156	0.04	39	39	1,300	No
Receptor_157	0.04	39	39	1,300	No
Receptor_158	0.04	39	39	1,300	No
Receptor_159	0.05	39	39	1,300	No
Receptor_160	0.05	39	39	1,300	No
Receptor_161	0.05	39	39	1,300	No
Receptor_162	0.05	39	39	1,300	No
Receptor_163	0.06	39	39	1,300	No
Receptor_164	0.06	39	39	1,300	No
Receptor_165	0.07	39	39	1,300	No
Receptor_166	0.07	39	39	1,300	No
Receptor_167	0.07	39	39	1,300	No
Receptor_168	0.08	39	39	1,300	No
Receptor_169	0.08	39	39	1,300	No
Receptor_170	0.08	39	39	1,300	No
Receptor_171	0.09	39	39	1,300	No
Receptor_172	0.08	39	39	1,300	No
Receptor_173	0.08	39	39	1,300	No
Receptor_174	0.08	39	39	1,300	No
Receptor_175	0.07	39	39	1,300	No
Receptor_176	0.07	39	39	1,300	No
Receptor_177	0.06	39	39	1,300	No
Receptor_178	0.06	39	39	1,300	No
Receptor_179	0.05	39	39	1,300	No
Receptor_180	0.05	39	39	1,300	No
Receptor_181	0.05	39	39	1,300	No
Receptor_182	0.05	39	39	1,300	No
Receptor_183	0.04	39	39	1,300	No
Receptor_184	0.04	39	39	1,300	No
Receptor_185	0.04	39	39	1,300	No
Receptor_186	0.04	39	39	1,300	No
Receptor_187	0.03	39	39	1,300	No
Receptor_188	0.03	39	39	1,300	No
Receptor_189	0.03	39	39	1,300	No
Receptor_190	0.03	39	39	1,300	No
Receptor_191	0.03	39	39	1,300	No
Receptor_192	0.03	39	39	1,300	No
Receptor_193	0.03	39	39	1,300	No
Receptor_194	0.03	39	39	1,300	No
Receptor_195	0.03	39	39	1,300	No
Receptor_196	0.03	39	39	1,300	No
Receptor_197	0.03	39	39	1,300	No
Receptor_198	0.03	39	39	1,300	No

[illegible]

**MSC North Project Draft EIR
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SO2 3-Hr

SO2 24-Hr

Receptor_ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_199	0.03	39	39	1,300	No
Receptor_200	0.03	39	39	1,300	No
Receptor_201	0.03	39	39	1,300	No
Receptor_202	0.03	39	39	1,300	No
Receptor_203	0.03	39	39	1,300	No
Receptor_204	0.03	39	39	1,300	No
Receptor_205	0.03	39	39	1,300	No
Receptor_206	0.02	39	39	1,300	No
Receptor_207	0.02	39	39	1,300	No
Receptor_208	0.02	39	39	1,300	No
Receptor_209	0.02	39	39	1,300	No
Receptor_210	0.02	39	39	1,300	No
Receptor_211	0.02	39	39	1,300	No
Receptor_212	0.02	39	39	1,300	No
Receptor_213	0.02	39	39	1,300	No
Receptor_214	0.02	39	39	1,300	No
Receptor_215	0.02	39	39	1,300	No
Receptor_216	0.02	39	39	1,300	No
Receptor_217	0.02	39	39	1,300	No
Receptor_218	0.02	39	39	1,300	No
Receptor_219	0.02	39	39	1,300	No
Receptor_220	0.02	39	39	1,300	No
Receptor_221	0.02	39	39	1,300	No
Receptor_222	0.03	39	39	1,300	No
Receptor_223	0.03	39	39	1,300	No
Receptor_224	0.03	39	39	1,300	No
Receptor_225	0.03	39	39	1,300	No
Receptor_226	0.03	39	39	1,300	No
Receptor_227	0.03	39	39	1,300	No
Receptor_228	0.03	39	39	1,300	No
Receptor_229	0.03	39	39	1,300	No
Receptor_230	0.03	39	39	1,300	No
Receptor_231	0.03	39	39	1,300	No
Receptor_232	0.03	39	39	1,300	No
Receptor_233	0.03	39	39	1,300	No
Receptor_234	0.03	39	39	1,300	No
Receptor_235	0.03	39	39	1,300	No
Receptor_236	0.03	39	39	1,300	No
Receptor_237	0.03	39	39	1,300	No
Receptor_238	0.03	39	39	1,300	No
Receptor_239	0.03	39	39	1,300	No
Receptor_240	0.02	39	39	1,300	No
Receptor_241	0.02	39	39	1,300	No
Receptor_242	0.02	39	39	1,300	No
Receptor_243	0.02	39	39	1,300	No
Receptor_244	0.02	39	39	1,300	No
Receptor_245	0.02	39	39	1,300	No
Receptor_246	0.02	39	39	1,300	No
Receptor_247	0.02	39	39	1,300	No
Receptor_248	0.02	39	39	1,300	No
Receptor_249	0.02	39	39	1,300	No
Receptor_250	0.02	39	39	1,300	No
Receptor_251	0.02	39	39	1,300	No
Receptor_252	0.02	39	39	1,300	No
Receptor_253	0.02	39	39	1,300	No
Receptor_254	0.02	39	39	1,300	No
Receptor_255	0.02	39	39	1,300	No
Receptor_256	0.02	39	39	1,300	No
Receptor_257	0.02	39	39	1,300	No
Receptor_258	0.02	39	39	1,300	No
Receptor_259	0.02	39	39	1,300	No
Receptor_260	0.02	39	39	1,300	No
Receptor_261	0.02	39	39	1,300	No
Receptor_262	0.02	39	39	1,300	No
Receptor_263	0.01	39	39	1,300	No
Receptor_264	0.01	39	39	1,300	No

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MSC North Project Draft EIR
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SO2 3-Hr

SO2 24-Hr

Receptor ID	Concentrations (ug/m3)				
	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_265	0.01	39	39	1,300	No
Receptor_266	0.01	39	39	1,300	No
Receptor_267	0.02	39	39	1,300	No
Receptor_268	0.02	39	39	1,300	No
Receptor_269	0.02	39	39	1,300	No
Receptor_270	0.02	39	39	1,300	No
Receptor_271	0.02	39	39	1,300	No
Receptor_272	0.02	39	39	1,300	No
Receptor_273	0.02	39	39	1,300	No
Receptor_274	0.02	39	39	1,300	No
Receptor_275	0.02	39	39	1,300	No
Receptor_276	0.02	39	39	1,300	No
Receptor_277	0.02	39	39	1,300	No
Receptor_278	0.02	39	39	1,300	No
Receptor_279	0.02	39	39	1,300	No
Receptor_280	0.03	39	39	1,300	No
Receptor_281	0.03	39	39	1,300	No
Receptor_282	0.03	39	39	1,300	No
Receptor_283	0.03	39	39	1,300	No
Receptor_284	0.03	39	39	1,300	No
Receptor_285	0.03	39	39	1,300	No
Receptor_286	0.03	39	39	1,300	No
Receptor_287	0.03	39	39	1,300	No
Receptor_288	0.04	39	39	1,300	No
Receptor_289	0.04	39	39	1,300	No
Receptor_290	0.04	39	39	1,300	No
Receptor_291	0.04	39	39	1,300	No
Receptor_292	0.04	39	39	1,300	No
Receptor_293	0.04	39	39	1,300	No
Receptor_294	0.04	39	39	1,300	No
Receptor_295	0.05	39	39	1,300	No
Receptor_296	0.05	39	39	1,300	No
Receptor_297	0.06	39	39	1,300	No
Receptor_298	0.06	39	39	1,300	No
Receptor_299	0.07	39	39	1,300	No
Receptor_300	0.08	39	39	1,300	No
Receptor_301	0.08	39	39	1,300	No
Receptor_302	0.08	39	39	1,300	No
Receptor_303	0.08	39	39	1,300	No
Receptor_304	0.10	39	39	1,300	No
Receptor_305	0.10	39	39	1,300	No
Receptor_306	0.11	39	39	1,300	No
Receptor_307	0.11	39	39	1,300	No
Receptor_308	0.10	39	39	1,300	No
Receptor_309	0.12	39	39	1,300	No
Receptor_310	0.13	39	39	1,300	No
Receptor_311	0.13	39	39	1,300	No
Receptor_312	0.12	39	39	1,300	No
Receptor_313	0.12	39	39	1,300	No
Receptor_314	0.11	39	39	1,300	No
Receptor_315	0.09	39	39	1,300	No
Receptor_316	0.08	39	39	1,300	No
Receptor_317	0.08	39	39	1,300	No
Receptor_318	0.08	39	39	1,300	No
Receptor_319	0.07	39	39	1,300	No
Receptor_320	0.06	39	39	1,300	No
Receptor_321	0.05	39	39	1,300	No
Receptor_322	0.05	39	39	1,300	No
Receptor_323	0.05	39	39	1,300	No
Receptor_324	0.05	39	39	1,300	No
Receptor_325	0.05	39	39	1,300	No
Receptor_326	0.05	39	39	1,300	No
Receptor_327	0.16	39	39	1,300	No

Maximum	0.16	39	39	1,300	No
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[illegible]

0.05	16	16	105	No
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**MSC North Project Draft EIR
Construction Dispersion**

SO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_1	0.00	3	3	80	No
Receptor_2	0.00	3	3	80	No
Receptor_3	0.00	3	3	80	No
Receptor_4	0.00	3	3	80	No
Receptor_5	0.00	3	3	80	No
Receptor_6	0.00	3	3	80	No
Receptor_7	0.00	3	3	80	No
Receptor_8	0.00	3	3	80	No
Receptor_9	0.00	3	3	80	No
Receptor_10	0.00	3	3	80	No
Receptor_11	0.00	3	3	80	No
Receptor_12	0.00	3	3	80	No
Receptor_13	0.00	3	3	80	No
Receptor_14	0.00	3	3	80	No
Receptor_15	0.00	3	3	80	No
Receptor_16	0.00	3	3	80	No
Receptor_17	0.00	3	3	80	No
Receptor_18	0.00	3	3	80	No
Receptor_19	0.00	3	3	80	No
Receptor_20	0.00	3	3	80	No
Receptor_21	0.00	3	3	80	No
Receptor_22	0.00	3	3	80	No
Receptor_23	0.00	3	3	80	No
Receptor_24	0.00	3	3	80	No
Receptor_25	0.00	3	3	80	No
Receptor_26	0.00	3	3	80	No
Receptor_27	0.00	3	3	80	No
Receptor_28	0.00	3	3	80	No
Receptor_29	0.00	3	3	80	No
Receptor_30	0.00	3	3	80	No
Receptor_31	0.00	3	3	80	No
Receptor_32	0.00	3	3	80	No
Receptor_33	0.00	3	3	80	No
Receptor_34	0.00	3	3	80	No
Receptor_35	0.00	3	3	80	No
Receptor_36	0.00	3	3	80	No
Receptor_37	0.00	3	3	80	No
Receptor_38	0.00	3	3	80	No
Receptor_39	0.00	3	3	80	No
Receptor_40	0.00	3	3	80	No
Receptor_41	0.00	3	3	80	No
Receptor_42	0.00	3	3	80	No
Receptor_43	0.00	3	3	80	No
Receptor_44	0.00	3	3	80	No
Receptor_45	0.00	3	3	80	No
Receptor_46	0.00	3	3	80	No
Receptor_47	0.00	3	3	80	No
Receptor_48	0.00	3	3	80	No
Receptor_49	0.00	3	3	80	No
Receptor_50	0.00	3	3	80	No
Receptor_51	0.00	3	3	80	No
Receptor_52	0.00	3	3	80	No
Receptor_53	0.00	3	3	80	No
Receptor_54	0.00	3	3	80	No
Receptor_55	0.00	3	3	80	No
Receptor_56	0.00	3	3	80	No
Receptor_57	0.00	3	3	80	No
Receptor_58	0.00	3	3	80	No
Receptor_59	0.00	3	3	80	No
Receptor_60	0.00	3	3	80	No
Receptor_61	0.00	3	3	80	No
Receptor_62	0.00	3	3	80	No
Receptor_63	0.01	3	3	80	No
Receptor_64	0.01	3	3	80	No
Receptor_65	0.01	3	3	80	No
Receptor_66	0.01	3	3	80	No

**MSC North Project Draft EIR
Construction Dispersion**

SO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_67	0.01	3	3	80	No
Receptor_68	0.01	3	3	80	No
Receptor_69	0.01	3	3	80	No
Receptor_70	0.01	3	3	80	No
Receptor_71	0.01	3	3	80	No
Receptor_72	0.01	3	3	80	No
Receptor_73	0.01	3	3	80	No
Receptor_74	0.01	3	3	80	No
Receptor_75	0.01	3	3	80	No
Receptor_76	0.01	3	3	80	No
Receptor_77	0.01	3	3	80	No
Receptor_78	0.01	3	3	80	No
Receptor_79	0.01	3	3	80	No
Receptor_80	0.01	3	3	80	No
Receptor_81	0.01	3	3	80	No
Receptor_82	0.01	3	3	80	No
Receptor_83	0.01	3	3	80	No
Receptor_84	0.01	3	3	80	No
Receptor_85	0.01	3	3	80	No
Receptor_86	0.01	3	3	80	No
Receptor_87	0.01	3	3	80	No
Receptor_88	0.01	3	3	80	No
Receptor_89	0.01	3	3	80	No
Receptor_90	0.01	3	3	80	No
Receptor_91	0.00	3	3	80	No
Receptor_92	0.00	3	3	80	No
Receptor_93	0.00	3	3	80	No
Receptor_94	0.00	3	3	80	No
Receptor_95	0.00	3	3	80	No
Receptor_96	0.00	3	3	80	No
Receptor_97	0.00	3	3	80	No
Receptor_98	0.00	3	3	80	No
Receptor_99	0.01	3	3	80	No
Receptor_100	0.01	3	3	80	No
Receptor_101	0.01	3	3	80	No
Receptor_102	0.01	3	3	80	No
Receptor_103	0.01	3	3	80	No
Receptor_104	0.01	3	3	80	No
Receptor_105	0.01	3	3	80	No
Receptor_106	0.01	3	3	80	No
Receptor_107	0.01	3	3	80	No
Receptor_108	0.01	3	3	80	No
Receptor_109	0.01	3	3	80	No
Receptor_110	0.01	3	3	80	No
Receptor_111	0.00	3	3	80	No
Receptor_112	0.00	3	3	80	No
Receptor_113	0.00	3	3	80	No
Receptor_114	0.00	3	3	80	No
Receptor_115	0.00	3	3	80	No
Receptor_116	0.00	3	3	80	No
Receptor_117	0.00	3	3	80	No
Receptor_118	0.00	3	3	80	No
Receptor_119	0.01	3	3	80	No
Receptor_120	0.01	3	3	80	No
Receptor_121	0.01	3	3	80	No
Receptor_122	0.01	3	3	80	No
Receptor_123	0.01	3	3	80	No
Receptor_124	0.01	3	3	80	No
Receptor_125	0.01	3	3	80	No
Receptor_126	0.01	3	3	80	No
Receptor_127	0.01	3	3	80	No
Receptor_128	0.00	3	3	80	No
Receptor_129	0.00	3	3	80	No
Receptor_130	0.00	3	3	80	No
Receptor_131	0.00	3	3	80	No
Receptor_132	0.00	3	3	80	No

**MSC North Project Draft EIR
Construction Dispersion**

SO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_133	0.00	3	3	80	No
Receptor_134	0.00	3	3	80	No
Receptor_135	0.00	3	3	80	No
Receptor_136	0.00	3	3	80	No
Receptor_137	0.00	3	3	80	No
Receptor_138	0.00	3	3	80	No
Receptor_139	0.00	3	3	80	No
Receptor_140	0.00	3	3	80	No
Receptor_141	0.00	3	3	80	No
Receptor_142	0.00	3	3	80	No
Receptor_143	0.00	3	3	80	No
Receptor_144	0.00	3	3	80	No
Receptor_145	0.00	3	3	80	No
Receptor_146	0.00	3	3	80	No
Receptor_147	0.00	3	3	80	No
Receptor_148	0.00	3	3	80	No
Receptor_149	0.00	3	3	80	No
Receptor_150	0.00	3	3	80	No
Receptor_151	0.00	3	3	80	No
Receptor_152	0.00	3	3	80	No
Receptor_153	0.00	3	3	80	No
Receptor_154	0.00	3	3	80	No
Receptor_155	0.00	3	3	80	No
Receptor_156	0.00	3	3	80	No
Receptor_157	0.00	3	3	80	No
Receptor_158	0.00	3	3	80	No
Receptor_159	0.00	3	3	80	No
Receptor_160	0.00	3	3	80	No
Receptor_161	0.00	3	3	80	No
Receptor_162	0.00	3	3	80	No
Receptor_163	0.00	3	3	80	No
Receptor_164	0.00	3	3	80	No
Receptor_165	0.00	3	3	80	No
Receptor_166	0.00	3	3	80	No
Receptor_167	0.00	3	3	80	No
Receptor_168	0.01	3	3	80	No
Receptor_169	0.01	3	3	80	No
Receptor_170	0.01	3	3	80	No
Receptor_171	0.01	3	3	80	No
Receptor_172	0.01	3	3	80	No
Receptor_173	0.01	3	3	80	No
Receptor_174	0.01	3	3	80	No
Receptor_175	0.00	3	3	80	No
Receptor_176	0.00	3	3	80	No
Receptor_177	0.00	3	3	80	No
Receptor_178	0.00	3	3	80	No
Receptor_179	0.00	3	3	80	No
Receptor_180	0.00	3	3	80	No
Receptor_181	0.00	3	3	80	No
Receptor_182	0.00	3	3	80	No
Receptor_183	0.00	3	3	80	No
Receptor_184	0.00	3	3	80	No
Receptor_185	0.00	3	3	80	No
Receptor_186	0.00	3	3	80	No
Receptor_187	0.00	3	3	80	No
Receptor_188	0.00	3	3	80	No
Receptor_189	0.00	3	3	80	No
Receptor_190	0.00	3	3	80	No
Receptor_191	0.00	3	3	80	No
Receptor_192	0.00	3	3	80	No
Receptor_193	0.00	3	3	80	No
Receptor_194	0.00	3	3	80	No
Receptor_195	0.00	3	3	80	No
Receptor_196	0.00	3	3	80	No
Receptor_197	0.00	3	3	80	No
Receptor_198	0.00	3	3	80	No

**MSC North Project Draft EIR
Construction Dispersion**

SO2 Annual

<u>Receptor ID</u>	<u>Concentrations (ug/m3)</u>				
	<u>Construction</u>	<u>Ambient</u>	<u>Total</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_199	0.00	3	3	80	No
Receptor_200	0.00	3	3	80	No
Receptor_201	0.00	3	3	80	No
Receptor_202	0.00	3	3	80	No
Receptor_203	0.00	3	3	80	No
Receptor_204	0.00	3	3	80	No
Receptor_205	0.00	3	3	80	No
Receptor_206	0.00	3	3	80	No
Receptor_207	0.00	3	3	80	No
Receptor_208	0.00	3	3	80	No
Receptor_209	0.00	3	3	80	No
Receptor_210	0.00	3	3	80	No
Receptor_211	0.00	3	3	80	No
Receptor_212	0.00	3	3	80	No
Receptor_213	0.00	3	3	80	No
Receptor_214	0.00	3	3	80	No
Receptor_215	0.00	3	3	80	No
Receptor_216	0.00	3	3	80	No
Receptor_217	0.00	3	3	80	No
Receptor_218	0.00	3	3	80	No
Receptor_219	0.00	3	3	80	No
Receptor_220	0.00	3	3	80	No
Receptor_221	0.00	3	3	80	No
Receptor_222	0.00	3	3	80	No
Receptor_223	0.00	3	3	80	No
Receptor_224	0.00	3	3	80	No
Receptor_225	0.00	3	3	80	No
Receptor_226	0.00	3	3	80	No
Receptor_227	0.00	3	3	80	No
Receptor_228	0.00	3	3	80	No
Receptor_229	0.00	3	3	80	No
Receptor_230	0.00	3	3	80	No
Receptor_231	0.00	3	3	80	No
Receptor_232	0.00	3	3	80	No
Receptor_233	0.00	3	3	80	No
Receptor_234	0.00	3	3	80	No
Receptor_235	0.00	3	3	80	No
Receptor_236	0.00	3	3	80	No
Receptor_237	0.00	3	3	80	No
Receptor_238	0.00	3	3	80	No
Receptor_239	0.00	3	3	80	No
Receptor_240	0.00	3	3	80	No
Receptor_241	0.00	3	3	80	No
Receptor_242	0.00	3	3	80	No
Receptor_243	0.00	3	3	80	No
Receptor_244	0.00	3	3	80	No
Receptor_245	0.00	3	3	80	No
Receptor_246	0.00	3	3	80	No
Receptor_247	0.00	3	3	80	No
Receptor_248	0.00	3	3	80	No
Receptor_249	0.00	3	3	80	No
Receptor_250	0.00	3	3	80	No
Receptor_251	0.00	3	3	80	No
Receptor_252	0.00	3	3	80	No
Receptor_253	0.00	3	3	80	No
Receptor_254	0.00	3	3	80	No
Receptor_255	0.00	3	3	80	No
Receptor_256	0.00	3	3	80	No
Receptor_257	0.00	3	3	80	No
Receptor_258	0.00	3	3	80	No
Receptor_259	0.00	3	3	80	No
Receptor_260	0.00	3	3	80	No
Receptor_261	0.00	3	3	80	No
Receptor_262	0.00	3	3	80	No
Receptor_263	0.00	3	3	80	No
Receptor_264	0.00	3	3	80	No

**MSC North Project Draft EIR
Construction Dispersion**

SO2 Annual

Concentrations (ug/m3)

Receptor ID	Construction	Ambient	Total	Threshold	Exceeds?
Receptor_265	0.00	3	3	80	No
Receptor_266	0.00	3	3	80	No
Receptor_267	0.00	3	3	80	No
Receptor_268	0.00	3	3	80	No
Receptor_269	0.00	3	3	80	No
Receptor_270	0.00	3	3	80	No
Receptor_271	0.00	3	3	80	No
Receptor_272	0.00	3	3	80	No
Receptor_273	0.00	3	3	80	No
Receptor_274	0.00	3	3	80	No
Receptor_275	0.00	3	3	80	No
Receptor_276	0.00	3	3	80	No
Receptor_277	0.00	3	3	80	No
Receptor_278	0.00	3	3	80	No
Receptor_279	0.00	3	3	80	No
Receptor_280	0.00	3	3	80	No
Receptor_281	0.00	3	3	80	No
Receptor_282	0.00	3	3	80	No
Receptor_283	0.00	3	3	80	No
Receptor_284	0.00	3	3	80	No
Receptor_285	0.00	3	3	80	No
Receptor_286	0.00	3	3	80	No
Receptor_287	0.00	3	3	80	No
Receptor_288	0.00	3	3	80	No
Receptor_289	0.00	3	3	80	No
Receptor_290	0.00	3	3	80	No
Receptor_291	0.00	3	3	80	No
Receptor_292	0.00	3	3	80	No
Receptor_293	0.00	3	3	80	No
Receptor_294	0.00	3	3	80	No
Receptor_295	0.00	3	3	80	No
Receptor_296	0.00	3	3	80	No
Receptor_297	0.00	3	3	80	No
Receptor_298	0.00	3	3	80	No
Receptor_299	0.01	3	3	80	No
Receptor_300	0.01	3	3	80	No
Receptor_301	0.01	3	3	80	No
Receptor_302	0.01	3	3	80	No
Receptor_303	0.01	3	3	80	No
Receptor_304	0.01	3	3	80	No
Receptor_305	0.01	3	3	80	No
Receptor_306	0.01	3	3	80	No
Receptor_307	0.01	3	3	80	No
Receptor_308	0.01	3	3	80	No
Receptor_309	0.01	3	3	80	No
Receptor_310	0.01	3	3	80	No
Receptor_311	0.01	3	3	80	No
Receptor_312	0.01	3	3	80	No
Receptor_313	0.01	3	3	80	No
Receptor_314	0.01	3	3	80	No
Receptor_315	0.01	3	3	80	No
Receptor_316	0.01	3	3	80	No
Receptor_317	0.00	3	3	80	No
Receptor_318	0.00	3	3	80	No
Receptor_319	0.00	3	3	80	No
Receptor_320	0.00	3	3	80	No
Receptor_321	0.00	3	3	80	No
Receptor_322	0.00	3	3	80	No
Receptor_323	0.00	3	3	80	No
Receptor_324	0.00	3	3	80	No
Receptor_325	0.00	3	3	80	No
Receptor_326	0.00	3	3	80	No
Receptor_327	0.01	3	3	80	No
Maximum	0.01	3	3	80	No

**MSC North Project Draft EIR
Construction Dispersion**

PM10 24-Hr

PM10 Annual

Receptor ID	Concentrations (ug/m3)			Receptor ID	Concentrations (ug/m3)		
	Construction	Threshold	Exceeds?		Construction	Threshold	Exceeds?
Receptor_1	0.99	10.40	No	Receptor_1	0.24	1.00	No
Receptor_2	0.98	10.40	No	Receptor_2	0.24	1.00	No
Receptor_3	0.99	10.40	No	Receptor_3	0.25	1.00	No
Receptor_4	1.00	10.40	No	Receptor_4	0.25	1.00	No
Receptor_5	1.04	10.40	No	Receptor_5	0.25	1.00	No
Receptor_6	1.06	10.40	No	Receptor_6	0.25	1.00	No
Receptor_7	1.08	10.40	No	Receptor_7	0.26	1.00	No
Receptor_8	1.10	10.40	No	Receptor_8	0.26	1.00	No
Receptor_9	1.10	10.40	No	Receptor_9	0.25	1.00	No
Receptor_10	1.10	10.40	No	Receptor_10	0.25	1.00	No
Receptor_11	1.09	10.40	No	Receptor_11	0.25	1.00	No
Receptor_12	1.09	10.40	No	Receptor_12	0.25	1.00	No
Receptor_13	1.15	10.40	No	Receptor_13	0.24	1.00	No
Receptor_14	1.19	10.40	No	Receptor_14	0.24	1.00	No
Receptor_15	1.19	10.40	No	Receptor_15	0.23	1.00	No
Receptor_16	1.17	10.40	No	Receptor_16	0.23	1.00	No
Receptor_17	1.12	10.40	No	Receptor_17	0.22	1.00	No
Receptor_18	1.04	10.40	No	Receptor_18	0.22	1.00	No
Receptor_19	0.96	10.40	No	Receptor_19	0.21	1.00	No
Receptor_20	0.87	10.40	No	Receptor_20	0.20	1.00	No
Receptor_21	0.82	10.40	No	Receptor_21	0.20	1.00	No
Receptor_22	0.81	10.40	No	Receptor_22	0.19	1.00	No
Receptor_23	0.78	10.40	No	Receptor_23	0.18	1.00	No
Receptor_24	0.76	10.40	No	Receptor_24	0.18	1.00	No
Receptor_25	0.74	10.40	No	Receptor_25	0.17	1.00	No
Receptor_26	0.72	10.40	No	Receptor_26	0.16	1.00	No
Receptor_27	0.69	10.40	No	Receptor_27	0.16	1.00	No
Receptor_28	0.66	10.40	No	Receptor_28	0.15	1.00	No
Receptor_29	0.69	10.40	No	Receptor_29	0.16	1.00	No
Receptor_30	0.72	10.40	No	Receptor_30	0.17	1.00	No
Receptor_31	0.75	10.40	No	Receptor_31	0.17	1.00	No
Receptor_32	0.74	10.40	No	Receptor_32	0.17	1.00	No
Receptor_33	0.77	10.40	No	Receptor_33	0.18	1.00	No
Receptor_34	0.80	10.40	No	Receptor_34	0.19	1.00	No
Receptor_35	0.82	10.40	No	Receptor_35	0.19	1.00	No
Receptor_36	0.85	10.40	No	Receptor_36	0.20	1.00	No
Receptor_37	0.88	10.40	No	Receptor_37	0.21	1.00	No
Receptor_38	0.91	10.40	No	Receptor_38	0.22	1.00	No
Receptor_39	0.95	10.40	No	Receptor_39	0.23	1.00	No
Receptor_40	1.01	10.40	No	Receptor_40	0.24	1.00	No
Receptor_41	1.06	10.40	No	Receptor_41	0.25	1.00	No
Receptor_42	1.11	10.40	No	Receptor_42	0.27	1.00	No
Receptor_43	1.09	10.40	No	Receptor_43	0.26	1.00	No
Receptor_44	1.12	10.40	No	Receptor_44	0.27	1.00	No
Receptor_45	1.16	10.40	No	Receptor_45	0.28	1.00	No
Receptor_46	1.23	10.40	No	Receptor_46	0.30	1.00	No
Receptor_47	1.31	10.40	No	Receptor_47	0.31	1.00	No
Receptor_48	1.33	10.40	No	Receptor_48	0.32	1.00	No
Receptor_49	1.39	10.40	No	Receptor_49	0.33	1.00	No
Receptor_50	1.47	10.40	No	Receptor_50	0.35	1.00	No
Receptor_51	1.45	10.40	No	Receptor_51	0.35	1.00	No
Receptor_52	1.42	10.40	No	Receptor_52	0.34	1.00	No
Receptor_53	1.41	10.40	No	Receptor_53	0.32	1.00	No
Receptor_54	1.44	10.40	No	Receptor_54	0.31	1.00	No
Receptor_55	1.37	10.40	No	Receptor_55	0.29	1.00	No
Receptor_56	1.49	10.40	No	Receptor_56	0.29	1.00	No
Receptor_57	1.60	10.40	No	Receptor_57	0.31	1.00	No
Receptor_58	1.72	10.40	No	Receptor_58	0.33	1.00	No
Receptor_59	1.63	10.40	No	Receptor_59	0.34	1.00	No
Receptor_60	1.82	10.40	No	Receptor_60	0.36	1.00	No
Receptor_61	2.02	10.40	No	Receptor_61	0.39	1.00	No
Receptor_62	2.24	10.40	No	Receptor_62	0.43	1.00	No
Receptor_63	2.47	10.40	No	Receptor_63	0.46	1.00	No
Receptor_64	2.72	10.40	No	Receptor_64	0.51	1.00	No
Receptor_65	2.93	10.40	No	Receptor_65	0.54	1.00	No
Receptor_66	3.10	10.40	No	Receptor_66	0.57	1.00	No

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Receptor ID	Concentrations (ug/m3)			Receptor ID	Concentrations (ug/m3)		
	Construction	Threshold	Exceeds?		Construction	Threshold	Exceeds?
Receptor_67	3.22	10.40	No	Receptor_67	0.60	1.00	No
Receptor_68	3.26	10.40	No	Receptor_68	0.64	1.00	No
Receptor_69	3.54	10.40	No	Receptor_69	0.70	1.00	No
Receptor_70	3.28	10.40	No	Receptor_70	0.69	1.00	No
Receptor_71	2.99	10.40	No	Receptor_71	0.68	1.00	No
Receptor_72	2.72	10.40	No	Receptor_72	0.67	1.00	No
Receptor_73	2.83	10.40	No	Receptor_73	0.65	1.00	No
Receptor_74	2.92	10.40	No	Receptor_74	0.63	1.00	No
Receptor_75	2.94	10.40	No	Receptor_75	0.61	1.00	No
Receptor_76	3.29	10.40	No	Receptor_76	0.68	1.00	No
Receptor_77	3.23	10.40	No	Receptor_77	0.66	1.00	No
Receptor_78	3.15	10.40	No	Receptor_78	0.65	1.00	No
Receptor_79	3.42	10.40	No	Receptor_79	0.71	1.00	No
Receptor_80	3.69	10.40	No	Receptor_80	0.78	1.00	No
Receptor_81	3.96	10.40	No	Receptor_81	0.87	1.00	No
Receptor_82	3.69	10.40	No	Receptor_82	0.81	1.00	No
Receptor_83	3.48	10.40	No	Receptor_83	0.75	1.00	No
Receptor_84	3.18	10.40	No	Receptor_84	0.68	1.00	No
Receptor_85	2.96	10.40	No	Receptor_85	0.62	1.00	No
Receptor_86	2.78	10.40	No	Receptor_86	0.57	1.00	No
Receptor_87	2.60	10.40	No	Receptor_87	0.54	1.00	No
Receptor_88	2.48	10.40	No	Receptor_88	0.52	1.00	No
Receptor_89	2.42	10.40	No	Receptor_89	0.49	1.00	No
Receptor_90	2.23	10.40	No	Receptor_90	0.45	1.00	No
Receptor_91	2.07	10.40	No	Receptor_91	0.41	1.00	No
Receptor_92	1.92	10.40	No	Receptor_92	0.38	1.00	No
Receptor_93	1.94	10.40	No	Receptor_93	0.38	1.00	No
Receptor_94	1.90	10.40	No	Receptor_94	0.38	1.00	No
Receptor_95	1.81	10.40	No	Receptor_95	0.38	1.00	No
Receptor_96	1.82	10.40	No	Receptor_96	0.38	1.00	No
Receptor_97	1.81	10.40	No	Receptor_97	0.38	1.00	No
Receptor_98	1.96	10.40	No	Receptor_98	0.41	1.00	No
Receptor_99	2.13	10.40	No	Receptor_99	0.45	1.00	No
Receptor_100	2.32	10.40	No	Receptor_100	0.50	1.00	No
Receptor_101	2.19	10.40	No	Receptor_101	0.49	1.00	No
Receptor_102	2.20	10.40	No	Receptor_102	0.48	1.00	No
Receptor_103	2.15	10.40	No	Receptor_103	0.46	1.00	No
Receptor_104	2.03	10.40	No	Receptor_104	0.45	1.00	No
Receptor_105	1.86	10.40	No	Receptor_105	0.43	1.00	No
Receptor_106	1.89	10.40	No	Receptor_106	0.46	1.00	No
Receptor_107	1.98	10.40	No	Receptor_107	0.48	1.00	No
Receptor_108	1.93	10.40	No	Receptor_108	0.47	1.00	No
Receptor_109	1.82	10.40	No	Receptor_109	0.44	1.00	No
Receptor_110	1.72	10.40	No	Receptor_110	0.42	1.00	No
Receptor_111	1.64	10.40	No	Receptor_111	0.40	1.00	No
Receptor_112	1.58	10.40	No	Receptor_112	0.38	1.00	No
Receptor_113	1.54	10.40	No	Receptor_113	0.37	1.00	No
Receptor_114	1.58	10.40	No	Receptor_114	0.36	1.00	No
Receptor_115	1.59	10.40	No	Receptor_115	0.35	1.00	No
Receptor_116	1.59	10.40	No	Receptor_116	0.34	1.00	No
Receptor_117	1.70	10.40	No	Receptor_117	0.37	1.00	No
Receptor_118	1.81	10.40	No	Receptor_118	0.39	1.00	No
Receptor_119	1.90	10.40	No	Receptor_119	0.42	1.00	No
Receptor_120	1.96	10.40	No	Receptor_120	0.45	1.00	No
Receptor_121	1.97	10.40	No	Receptor_121	0.45	1.00	No
Receptor_122	2.05	10.40	No	Receptor_122	0.46	1.00	No
Receptor_123	2.02	10.40	No	Receptor_123	0.44	1.00	No
Receptor_124	1.99	10.40	No	Receptor_124	0.43	1.00	No
Receptor_125	2.15	10.40	No	Receptor_125	0.45	1.00	No
Receptor_126	2.11	10.40	No	Receptor_126	0.43	1.00	No
Receptor_127	1.94	10.40	No	Receptor_127	0.40	1.00	No
Receptor_128	1.78	10.40	No	Receptor_128	0.38	1.00	No
Receptor_129	1.66	10.40	No	Receptor_129	0.36	1.00	No
Receptor_130	1.65	10.40	No	Receptor_130	0.35	1.00	No
Receptor_131	1.63	10.40	No	Receptor_131	0.34	1.00	No
Receptor_132	1.53	10.40	No	Receptor_132	0.32	1.00	No

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Receptor ID	Concentrations (ug/m3)			Concentrations (ug/m3)		
	Construction	Threshold	Exceeds?	Construction	Threshold	Exceeds?
Receptor_133	1.44	10.40	No	0.30	1.00	No
Receptor_134	1.36	10.40	No	0.28	1.00	No
Receptor_135	1.29	10.40	No	0.27	1.00	No
Receptor_136	1.22	10.40	No	0.25	1.00	No
Receptor_137	1.16	10.40	No	0.24	1.00	No
Receptor_138	1.19	10.40	No	0.24	1.00	No
Receptor_139	1.24	10.40	No	0.24	1.00	No
Receptor_140	1.24	10.40	No	0.23	1.00	No
Receptor_141	1.28	10.40	No	0.23	1.00	No
Receptor_142	1.23	10.40	No	0.22	1.00	No
Receptor_143	1.21	10.40	No	0.23	1.00	No
Receptor_144	1.17	10.40	No	0.23	1.00	No
Receptor_145	1.14	10.40	No	0.23	1.00	No
Receptor_146	1.10	10.40	No	0.22	1.00	No
Receptor_147	1.06	10.40	No	0.21	1.00	No
Receptor_148	1.02	10.40	No	0.20	1.00	No
Receptor_149	1.01	10.40	No	0.19	1.00	No
Receptor_150	0.99	10.40	No	0.19	1.00	No
Receptor_151	1.00	10.40	No	0.19	1.00	No
Receptor_152	1.01	10.40	No	0.19	1.00	No
Receptor_153	1.00	10.40	No	0.19	1.00	No
Receptor_154	1.07	10.40	No	0.20	1.00	No
Receptor_155	1.07	10.40	No	0.20	1.00	No
Receptor_156	1.07	10.40	No	0.20	1.00	No
Receptor_157	1.13	10.40	No	0.22	1.00	No
Receptor_158	1.14	10.40	No	0.22	1.00	No
Receptor_159	1.20	10.40	No	0.23	1.00	No
Receptor_160	1.26	10.40	No	0.24	1.00	No
Receptor_161	1.32	10.40	No	0.26	1.00	No
Receptor_162	1.40	10.40	No	0.27	1.00	No
Receptor_163	1.49	10.40	No	0.29	1.00	No
Receptor_164	1.58	10.40	No	0.32	1.00	No
Receptor_165	1.68	10.40	No	0.34	1.00	No
Receptor_166	1.83	10.40	No	0.37	1.00	No
Receptor_167	1.99	10.40	No	0.40	1.00	No
Receptor_168	2.17	10.40	No	0.44	1.00	No
Receptor_169	2.28	10.40	No	0.46	1.00	No
Receptor_170	2.27	10.40	No	0.46	1.00	No
Receptor_171	2.29	10.40	No	0.46	1.00	No
Receptor_172	2.27	10.40	No	0.45	1.00	No
Receptor_173	2.27	10.40	No	0.44	1.00	No
Receptor_174	2.16	10.40	No	0.42	1.00	No
Receptor_175	1.99	10.40	No	0.38	1.00	No
Receptor_176	1.85	10.40	No	0.35	1.00	No
Receptor_177	1.72	10.40	No	0.32	1.00	No
Receptor_178	1.61	10.40	No	0.30	1.00	No
Receptor_179	1.51	10.40	No	0.28	1.00	No
Receptor_180	1.41	10.40	No	0.26	1.00	No
Receptor_181	1.33	10.40	No	0.24	1.00	No
Receptor_182	1.25	10.40	No	0.23	1.00	No
Receptor_183	1.18	10.40	No	0.21	1.00	No
Receptor_184	1.12	10.40	No	0.20	1.00	No
Receptor_185	1.06	10.40	No	0.19	1.00	No
Receptor_186	1.01	10.40	No	0.18	1.00	No
Receptor_187	0.96	10.40	No	0.17	1.00	No
Receptor_188	0.91	10.40	No	0.16	1.00	No
Receptor_189	0.87	10.40	No	0.15	1.00	No
Receptor_190	0.83	10.40	No	0.14	1.00	No
Receptor_191	0.83	10.40	No	0.14	1.00	No
Receptor_192	0.83	10.40	No	0.15	1.00	No
Receptor_193	0.81	10.40	No	0.15	1.00	No
Receptor_194	0.79	10.40	No	0.15	1.00	No
Receptor_195	0.80	10.40	No	0.15	1.00	No
Receptor_196	0.79	10.40	No	0.15	1.00	No
Receptor_197	0.78	10.40	No	0.15	1.00	No
Receptor_198	0.77	10.40	No	0.14	1.00	No

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Receptor ID	Concentrations (ug/m3)			Receptor ID	Concentrations (ug/m3)		
	Construction	Threshold	Exceeds?		Construction	Threshold	Exceeds?
Receptor_199	0.75	10.40	No	Receptor_199	0.14	1.00	No
Receptor_200	0.75	10.40	No	Receptor_200	0.14	1.00	No
Receptor_201	0.76	10.40	No	Receptor_201	0.14	1.00	No
Receptor_202	0.74	10.40	No	Receptor_202	0.14	1.00	No
Receptor_203	0.71	10.40	No	Receptor_203	0.13	1.00	No
Receptor_204	0.68	10.40	No	Receptor_204	0.13	1.00	No
Receptor_205	0.65	10.40	No	Receptor_205	0.12	1.00	No
Receptor_206	0.62	10.40	No	Receptor_206	0.12	1.00	No
Receptor_207	0.60	10.40	No	Receptor_207	0.11	1.00	No
Receptor_208	0.58	10.40	No	Receptor_208	0.11	1.00	No
Receptor_209	0.57	10.40	No	Receptor_209	0.11	1.00	No
Receptor_210	0.58	10.40	No	Receptor_210	0.11	1.00	No
Receptor_211	0.58	10.40	No	Receptor_211	0.10	1.00	No
Receptor_212	0.58	10.40	No	Receptor_212	0.10	1.00	No
Receptor_213	0.57	10.40	No	Receptor_213	0.10	1.00	No
Receptor_214	0.58	10.40	No	Receptor_214	0.10	1.00	No
Receptor_215	0.59	10.40	No	Receptor_215	0.10	1.00	No
Receptor_216	0.59	10.40	No	Receptor_216	0.10	1.00	No
Receptor_217	0.62	10.40	No	Receptor_217	0.11	1.00	No
Receptor_218	0.64	10.40	No	Receptor_218	0.11	1.00	No
Receptor_219	0.66	10.40	No	Receptor_219	0.11	1.00	No
Receptor_220	0.67	10.40	No	Receptor_220	0.12	1.00	No
Receptor_221	0.69	10.40	No	Receptor_221	0.12	1.00	No
Receptor_222	0.72	10.40	No	Receptor_222	0.12	1.00	No
Receptor_223	0.75	10.40	No	Receptor_223	0.13	1.00	No
Receptor_224	0.78	10.40	No	Receptor_224	0.13	1.00	No
Receptor_225	0.81	10.40	No	Receptor_225	0.14	1.00	No
Receptor_226	0.82	10.40	No	Receptor_226	0.14	1.00	No
Receptor_227	0.81	10.40	No	Receptor_227	0.14	1.00	No
Receptor_228	0.78	10.40	No	Receptor_228	0.14	1.00	No
Receptor_229	0.75	10.40	No	Receptor_229	0.14	1.00	No
Receptor_230	0.72	10.40	No	Receptor_230	0.13	1.00	No
Receptor_231	0.71	10.40	No	Receptor_231	0.13	1.00	No
Receptor_232	0.68	10.40	No	Receptor_232	0.13	1.00	No
Receptor_233	0.66	10.40	No	Receptor_233	0.13	1.00	No
Receptor_234	0.63	10.40	No	Receptor_234	0.13	1.00	No
Receptor_235	0.65	10.40	No	Receptor_235	0.14	1.00	No
Receptor_236	0.60	10.40	No	Receptor_236	0.14	1.00	No
Receptor_237	0.58	10.40	No	Receptor_237	0.13	1.00	No
Receptor_238	0.56	10.40	No	Receptor_238	0.13	1.00	No
Receptor_239	0.54	10.40	No	Receptor_239	0.12	1.00	No
Receptor_240	0.53	10.40	No	Receptor_240	0.12	1.00	No
Receptor_241	0.51	10.40	No	Receptor_241	0.11	1.00	No
Receptor_242	0.49	10.40	No	Receptor_242	0.11	1.00	No
Receptor_243	0.47	10.40	No	Receptor_243	0.11	1.00	No
Receptor_244	0.45	10.40	No	Receptor_244	0.10	1.00	No
Receptor_245	0.43	10.40	No	Receptor_245	0.10	1.00	No
Receptor_246	0.42	10.40	No	Receptor_246	0.09	1.00	No
Receptor_247	0.42	10.40	No	Receptor_247	0.09	1.00	No
Receptor_248	0.43	10.40	No	Receptor_248	0.09	1.00	No
Receptor_249	0.43	10.40	No	Receptor_249	0.09	1.00	No
Receptor_250	0.42	10.40	No	Receptor_250	0.09	1.00	No
Receptor_251	0.42	10.40	No	Receptor_251	0.09	1.00	No
Receptor_252	0.42	10.40	No	Receptor_252	0.09	1.00	No
Receptor_253	0.43	10.40	No	Receptor_253	0.09	1.00	No
Receptor_254	0.45	10.40	No	Receptor_254	0.09	1.00	No
Receptor_255	0.46	10.40	No	Receptor_255	0.10	1.00	No
Receptor_256	0.46	10.40	No	Receptor_256	0.10	1.00	No
Receptor_257	0.47	10.40	No	Receptor_257	0.10	1.00	No
Receptor_258	0.48	10.40	No	Receptor_258	0.10	1.00	No
Receptor_259	0.48	10.40	No	Receptor_259	0.10	1.00	No
Receptor_260	0.48	10.40	No	Receptor_260	0.10	1.00	No
Receptor_261	0.49	10.40	No	Receptor_261	0.10	1.00	No
Receptor_262	0.51	10.40	No	Receptor_262	0.11	1.00	No
Receptor_263	0.51	10.40	No	Receptor_263	0.10	1.00	No
Receptor_264	0.51	10.40	No	Receptor_264	0.10	1.00	No

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Receptor ID	Concentrations (ug/m3)			Receptor ID	Concentrations (ug/m3)		
	Construction	Threshold	Exceeds?		Construction	Threshold	Exceeds?
Receptor_265	0.50	10.40	No	Receptor_265	0.10	1.00	No
Receptor_266	0.50	10.40	No	Receptor_266	0.10	1.00	No
Receptor_267	0.51	10.40	No	Receptor_267	0.10	1.00	No
Receptor_268	0.53	10.40	No	Receptor_268	0.11	1.00	No
Receptor_269	0.54	10.40	No	Receptor_269	0.11	1.00	No
Receptor_270	0.56	10.40	No	Receptor_270	0.12	1.00	No
Receptor_271	0.57	10.40	No	Receptor_271	0.12	1.00	No
Receptor_272	0.58	10.40	No	Receptor_272	0.13	1.00	No
Receptor_273	0.60	10.40	No	Receptor_273	0.13	1.00	No
Receptor_274	0.61	10.40	No	Receptor_274	0.14	1.00	No
Receptor_275	0.63	10.40	No	Receptor_275	0.14	1.00	No
Receptor_276	0.64	10.40	No	Receptor_276	0.15	1.00	No
Receptor_277	0.65	10.40	No	Receptor_277	0.16	1.00	No
Receptor_278	0.68	10.40	No	Receptor_278	0.17	1.00	No
Receptor_279	0.72	10.40	No	Receptor_279	0.17	1.00	No
Receptor_280	0.76	10.40	No	Receptor_280	0.18	1.00	No
Receptor_281	0.80	10.40	No	Receptor_281	0.19	1.00	No
Receptor_282	0.84	10.40	No	Receptor_282	0.20	1.00	No
Receptor_283	0.89	10.40	No	Receptor_283	0.21	1.00	No
Receptor_284	0.94	10.40	No	Receptor_284	0.23	1.00	No
Receptor_285	0.99	10.40	No	Receptor_285	0.24	1.00	No
Receptor_286	1.05	10.40	No	Receptor_286	0.25	1.00	No
Receptor_287	1.10	10.40	No	Receptor_287	0.27	1.00	No
Receptor_288	1.16	10.40	No	Receptor_288	0.28	1.00	No
Receptor_289	1.20	10.40	No	Receptor_289	0.29	1.00	No
Receptor_290	1.22	10.40	No	Receptor_290	0.29	1.00	No
Receptor_291	1.23	10.40	No	Receptor_291	0.30	1.00	No
Receptor_292	1.23	10.40	No	Receptor_292	0.30	1.00	No
Receptor_293	1.31	10.40	No	Receptor_293	0.31	1.00	No
Receptor_294	1.39	10.40	No	Receptor_294	0.33	1.00	No
Receptor_295	1.49	10.40	No	Receptor_295	0.35	1.00	No
Receptor_296	1.60	10.40	No	Receptor_296	0.38	1.00	No
Receptor_297	1.71	10.40	No	Receptor_297	0.40	1.00	No
Receptor_298	1.81	10.40	No	Receptor_298	0.42	1.00	No
Receptor_299	1.93	10.40	No	Receptor_299	0.45	1.00	No
Receptor_300	2.01	10.40	No	Receptor_300	0.47	1.00	No
Receptor_301	2.02	10.40	No	Receptor_301	0.49	1.00	No
Receptor_302	2.18	10.40	No	Receptor_302	0.52	1.00	No
Receptor_303	2.55	10.40	No	Receptor_303	0.54	1.00	No
Receptor_304	2.87	10.40	No	Receptor_304	0.55	1.00	No
Receptor_305	3.06	10.40	No	Receptor_305	0.57	1.00	No
Receptor_306	3.08	10.40	No	Receptor_306	0.58	1.00	No
Receptor_307	2.95	10.40	No	Receptor_307	0.59	1.00	No
Receptor_308	3.09	10.40	No	Receptor_308	0.58	1.00	No
Receptor_309	3.25	10.40	No	Receptor_309	0.58	1.00	No
Receptor_310	3.25	10.40	No	Receptor_310	0.57	1.00	No
Receptor_311	3.10	10.40	No	Receptor_311	0.55	1.00	No
Receptor_312	2.87	10.40	No	Receptor_312	0.54	1.00	No
Receptor_313	2.73	10.40	No	Receptor_313	0.52	1.00	No
Receptor_314	2.49	10.40	No	Receptor_314	0.49	1.00	No
Receptor_315	2.30	10.40	No	Receptor_315	0.47	1.00	No
Receptor_316	2.14	10.40	No	Receptor_316	0.44	1.00	No
Receptor_317	1.98	10.40	No	Receptor_317	0.42	1.00	No
Receptor_318	1.85	10.40	No	Receptor_318	0.39	1.00	No
Receptor_319	1.72	10.40	No	Receptor_319	0.37	1.00	No
Receptor_320	1.61	10.40	No	Receptor_320	0.35	1.00	No
Receptor_321	1.50	10.40	No	Receptor_321	0.34	1.00	No
Receptor_322	1.38	10.40	No	Receptor_322	0.32	1.00	No
Receptor_323	1.31	10.40	No	Receptor_323	0.30	1.00	No
Receptor_324	1.23	10.40	No	Receptor_324	0.28	1.00	No
Receptor_325	1.14	10.40	No	Receptor_325	0.27	1.00	No
Receptor_326	1.06	10.40	No	Receptor_326	0.25	1.00	No
Receptor_327	4.41	10.40	No	Receptor_327	0.90	1.00	No
Maximum	4.41	10.40	No	Maximum	0.90	1.00	No

**MSC North Project Draft EIR
Construction Dispersion**

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Concentrations (ug/m3)			
<u>Receptor ID</u>	<u>Construction</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_1	0.38	10.40	No
Receptor_2	0.38	10.40	No
Receptor_3	0.38	10.40	No
Receptor_4	0.39	10.40	No
Receptor_5	0.39	10.40	No
Receptor_6	0.40	10.40	No
Receptor_7	0.41	10.40	No
Receptor_8	0.41	10.40	No
Receptor_9	0.41	10.40	No
Receptor_10	0.41	10.40	No
Receptor_11	0.41	10.40	No
Receptor_12	0.43	10.40	No
Receptor_13	0.44	10.40	No
Receptor_14	0.45	10.40	No
Receptor_15	0.45	10.40	No
Receptor_16	0.44	10.40	No
Receptor_17	0.42	10.40	No
Receptor_18	0.40	10.40	No
Receptor_19	0.37	10.40	No
Receptor_20	0.34	10.40	No
Receptor_21	0.31	10.40	No
Receptor_22	0.29	10.40	No
Receptor_23	0.28	10.40	No
Receptor_24	0.27	10.40	No
Receptor_25	0.26	10.40	No
Receptor_26	0.25	10.40	No
Receptor_27	0.24	10.40	No
Receptor_28	0.23	10.40	No
Receptor_29	0.24	10.40	No
Receptor_30	0.25	10.40	No
Receptor_31	0.26	10.40	No
Receptor_32	0.26	10.40	No
Receptor_33	0.27	10.40	No
Receptor_34	0.28	10.40	No
Receptor_35	0.30	10.40	No
Receptor_36	0.31	10.40	No
Receptor_37	0.32	10.40	No
Receptor_38	0.33	10.40	No
Receptor_39	0.35	10.40	No
Receptor_40	0.37	10.40	No
Receptor_41	0.39	10.40	No
Receptor_42	0.41	10.40	No
Receptor_43	0.42	10.40	No
Receptor_44	0.47	10.40	No
Receptor_45	0.51	10.40	No
Receptor_46	0.53	10.40	No
Receptor_47	0.54	10.40	No
Receptor_48	0.59	10.40	No
Receptor_49	0.61	10.40	No
Receptor_50	0.68	10.40	No
Receptor_51	0.70	10.40	No
Receptor_52	0.72	10.40	No
Receptor_53	0.69	10.40	No
Receptor_54	0.67	10.40	No
Receptor_55	0.63	10.40	No
Receptor_56	0.63	10.40	No
Receptor_57	0.67	10.40	No
Receptor_58	0.71	10.40	No
Receptor_59	0.74	10.40	No
Receptor_60	0.80	10.40	No
Receptor_61	0.86	10.40	No
Receptor_62	0.92	10.40	No
Receptor_63	0.99	10.40	No
Receptor_64	1.05	10.40	No
Receptor_65	1.07	10.40	No
Receptor_66	1.08	10.40	No

**MSC North Project Draft EIR
Construction Dispersion**

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Concentrations (ug/m3)			
<u>Receptor ID</u>	<u>Construction</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_67	1.07	10.40	No
Receptor_68	1.05	10.40	No
Receptor_69	1.15	10.40	No
Receptor_70	1.08	10.40	No
Receptor_71	1.03	10.40	No
Receptor_72	0.98	10.40	No
Receptor_73	0.97	10.40	No
Receptor_74	0.96	10.40	No
Receptor_75	0.95	10.40	No
Receptor_76	1.07	10.40	No
Receptor_77	1.04	10.40	No
Receptor_78	1.00	10.40	No
Receptor_79	1.08	10.40	No
Receptor_80	1.14	10.40	No
Receptor_81	1.19	10.40	No
Receptor_82	1.09	10.40	No
Receptor_83	1.00	10.40	No
Receptor_84	0.98	10.40	No
Receptor_85	0.94	10.40	No
Receptor_86	0.88	10.40	No
Receptor_87	0.84	10.40	No
Receptor_88	0.79	10.40	No
Receptor_89	0.74	10.40	No
Receptor_90	0.69	10.40	No
Receptor_91	0.64	10.40	No
Receptor_92	0.60	10.40	No
Receptor_93	0.59	10.40	No
Receptor_94	0.57	10.40	No
Receptor_95	0.55	10.40	No
Receptor_96	0.54	10.40	No
Receptor_97	0.53	10.40	No
Receptor_98	0.56	10.40	No
Receptor_99	0.60	10.40	No
Receptor_100	0.63	10.40	No
Receptor_101	0.59	10.40	No
Receptor_102	0.55	10.40	No
Receptor_103	0.51	10.40	No
Receptor_104	0.47	10.40	No
Receptor_105	0.46	10.40	No
Receptor_106	0.49	10.40	No
Receptor_107	0.52	10.40	No
Receptor_108	0.51	10.40	No
Receptor_109	0.49	10.40	No
Receptor_110	0.47	10.40	No
Receptor_111	0.44	10.40	No
Receptor_112	0.44	10.40	No
Receptor_113	0.43	10.40	No
Receptor_114	0.42	10.40	No
Receptor_115	0.42	10.40	No
Receptor_116	0.41	10.40	No
Receptor_117	0.43	10.40	No
Receptor_118	0.45	10.40	No
Receptor_119	0.47	10.40	No
Receptor_120	0.48	10.40	No
Receptor_121	0.48	10.40	No
Receptor_122	0.48	10.40	No
Receptor_123	0.46	10.40	No
Receptor_124	0.45	10.40	No
Receptor_125	0.47	10.40	No
Receptor_126	0.45	10.40	No
Receptor_127	0.43	10.40	No
Receptor_128	0.41	10.40	No
Receptor_129	0.40	10.40	No
Receptor_130	0.39	10.40	No
Receptor_131	0.38	10.40	No
Receptor_132	0.36	10.40	No

**MSC North Project Draft EIR
Construction Dispersion**

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Concentrations (ug/m3)			
<u>Receptor ID</u>	<u>Construction</u>	<u>Threshold</u>	<u>Exceeds?</u>
Receptor_133	0.34	10.40	No
Receptor_134	0.32	10.40	No
Receptor_135	0.31	10.40	No
Receptor_136	0.29	10.40	No
Receptor_137	0.28	10.40	No
Receptor_138	0.28	10.40	No
Receptor_139	0.28	10.40	No
Receptor_140	0.27	10.40	No
Receptor_141	0.28	10.40	No
Receptor_142	0.28	10.40	No
Receptor_143	0.29	10.40	No
Receptor_144	0.29	10.40	No
Receptor_145	0.30	10.40	No
Receptor_146	0.29	10.40	No
Receptor_147	0.28	10.40	No
Receptor_148	0.27	10.40	No
Receptor_149	0.26	10.40	No
Receptor_150	0.26	10.40	No
Receptor_151	0.25	10.40	No
Receptor_152	0.24	10.40	No
Receptor_153	0.23	10.40	No
Receptor_154	0.25	10.40	No
Receptor_155	0.26	10.40	No
Receptor_156	0.26	10.40	No
Receptor_157	0.28	10.40	No
Receptor_158	0.27	10.40	No
Receptor_159	0.29	10.40	No
Receptor_160	0.30	10.40	No
Receptor_161	0.32	10.40	No
Receptor_162	0.34	10.40	No
Receptor_163	0.36	10.40	No
Receptor_164	0.39	10.40	No
Receptor_165	0.41	10.40	No
Receptor_166	0.44	10.40	No
Receptor_167	0.47	10.40	No
Receptor_168	0.51	10.40	No
Receptor_169	0.53	10.40	No
Receptor_170	0.53	10.40	No
Receptor_171	0.51	10.40	No
Receptor_172	0.49	10.40	No
Receptor_173	0.47	10.40	No
Receptor_174	0.45	10.40	No
Receptor_175	0.43	10.40	No
Receptor_176	0.40	10.40	No
Receptor_177	0.38	10.40	No
Receptor_178	0.35	10.40	No
Receptor_179	0.34	10.40	No
Receptor_180	0.32	10.40	No
Receptor_181	0.30	10.40	No
Receptor_182	0.29	10.40	No
Receptor_183	0.27	10.40	No
Receptor_184	0.26	10.40	No
Receptor_185	0.25	10.40	No
Receptor_186	0.24	10.40	No
Receptor_187	0.23	10.40	No
Receptor_188	0.22	10.40	No
Receptor_189	0.21	10.40	No
Receptor_190	0.20	10.40	No
Receptor_191	0.20	10.40	No
Receptor_192	0.20	10.40	No
Receptor_193	0.19	10.40	No
Receptor_194	0.19	10.40	No
Receptor_195	0.19	10.40	No
Receptor_196	0.19	10.40	No
Receptor_197	0.19	10.40	No
Receptor_198	0.20	10.40	No

**MSC North Project Draft EIR
Construction Dispersion**

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Receptor ID	Concentrations (ug/m3)		
	Construction	Threshold	Exceeds?
Receptor_199	0.20	10.40	No
Receptor_200	0.20	10.40	No
Receptor_201	0.20	10.40	No
Receptor_202	0.20	10.40	No
Receptor_203	0.19	10.40	No
Receptor_204	0.18	10.40	No
Receptor_205	0.18	10.40	No
Receptor_206	0.17	10.40	No
Receptor_207	0.16	10.40	No
Receptor_208	0.16	10.40	No
Receptor_209	0.15	10.40	No
Receptor_210	0.14	10.40	No
Receptor_211	0.14	10.40	No
Receptor_212	0.14	10.40	No
Receptor_213	0.14	10.40	No
Receptor_214	0.14	10.40	No
Receptor_215	0.15	10.40	No
Receptor_216	0.15	10.40	No
Receptor_217	0.15	10.40	No
Receptor_218	0.16	10.40	No
Receptor_219	0.16	10.40	No
Receptor_220	0.17	10.40	No
Receptor_221	0.17	10.40	No
Receptor_222	0.18	10.40	No
Receptor_223	0.18	10.40	No
Receptor_224	0.19	10.40	No
Receptor_225	0.19	10.40	No
Receptor_226	0.20	10.40	No
Receptor_227	0.20	10.40	No
Receptor_228	0.19	10.40	No
Receptor_229	0.19	10.40	No
Receptor_230	0.19	10.40	No
Receptor_231	0.18	10.40	No
Receptor_232	0.18	10.40	No
Receptor_233	0.18	10.40	No
Receptor_234	0.17	10.40	No
Receptor_235	0.18	10.40	No
Receptor_236	0.17	10.40	No
Receptor_237	0.17	10.40	No
Receptor_238	0.16	10.40	No
Receptor_239	0.16	10.40	No
Receptor_240	0.15	10.40	No
Receptor_241	0.14	10.40	No
Receptor_242	0.14	10.40	No
Receptor_243	0.13	10.40	No
Receptor_244	0.13	10.40	No
Receptor_245	0.12	10.40	No
Receptor_246	0.12	10.40	No
Receptor_247	0.12	10.40	No
Receptor_248	0.12	10.40	No
Receptor_249	0.11	10.40	No
Receptor_250	0.11	10.40	No
Receptor_251	0.11	10.40	No
Receptor_252	0.12	10.40	No
Receptor_253	0.12	10.40	No
Receptor_254	0.12	10.40	No
Receptor_255	0.13	10.40	No
Receptor_256	0.13	10.40	No
Receptor_257	0.13	10.40	No
Receptor_258	0.13	10.40	No
Receptor_259	0.13	10.40	No
Receptor_260	0.13	10.40	No
Receptor_261	0.13	10.40	No
Receptor_262	0.14	10.40	No
Receptor_263	0.14	10.40	No
Receptor_264	0.14	10.40	No

**MSC North Project Draft EIR
Construction Dispersion**

PM2.5 24-Hr

Concentrations (ug/m3)			
Receptor ID	Construction	Threshold	Exceeds?
Receptor_265	0.13	10.40	No
Receptor_266	0.13	10.40	No
Receptor_267	0.14	10.40	No
Receptor_268	0.14	10.40	No
Receptor_269	0.15	10.40	No
Receptor_270	0.15	10.40	No
Receptor_271	0.16	10.40	No
Receptor_272	0.16	10.40	No
Receptor_273	0.17	10.40	No
Receptor_274	0.17	10.40	No
Receptor_275	0.18	10.40	No
Receptor_276	0.19	10.40	No
Receptor_277	0.19	10.40	No
Receptor_278	0.20	10.40	No
Receptor_279	0.21	10.40	No
Receptor_280	0.21	10.40	No
Receptor_281	0.22	10.40	No
Receptor_282	0.23	10.40	No
Receptor_283	0.24	10.40	No
Receptor_284	0.25	10.40	No
Receptor_285	0.26	10.40	No
Receptor_286	0.28	10.40	No
Receptor_287	0.29	10.40	No
Receptor_288	0.30	10.40	No
Receptor_289	0.31	10.40	No
Receptor_290	0.32	10.40	No
Receptor_291	0.32	10.40	No
Receptor_292	0.33	10.40	No
Receptor_293	0.35	10.40	No
Receptor_294	0.37	10.40	No
Receptor_295	0.39	10.40	No
Receptor_296	0.42	10.40	No
Receptor_297	0.45	10.40	No
Receptor_298	0.50	10.40	No
Receptor_299	0.54	10.40	No
Receptor_300	0.58	10.40	No
Receptor_301	0.62	10.40	No
Receptor_302	0.66	10.40	No
Receptor_303	0.68	10.40	No
Receptor_304	0.70	10.40	No
Receptor_305	0.74	10.40	No
Receptor_306	0.85	10.40	No
Receptor_307	0.95	10.40	No
Receptor_308	1.02	10.40	No
Receptor_309	1.05	10.40	No
Receptor_310	1.02	10.40	No
Receptor_311	0.98	10.40	No
Receptor_312	1.01	10.40	No
Receptor_313	1.00	10.40	No
Receptor_314	0.94	10.40	No
Receptor_315	0.90	10.40	No
Receptor_316	0.84	10.40	No
Receptor_317	0.77	10.40	No
Receptor_318	0.71	10.40	No
Receptor_319	0.66	10.40	No
Receptor_320	0.62	10.40	No
Receptor_321	0.58	10.40	No
Receptor_322	0.55	10.40	No
Receptor_323	0.51	10.40	No
Receptor_324	0.47	10.40	No
Receptor_325	0.44	10.40	No
Receptor_326	0.41	10.40	No
Receptor_327	0.81	10.40	No
Maximum	1.19	10.40	No

Attachment B.3

Construction – Cumulative Emissions Analysis

LAX MSC North Project Draft EIR
Cumulative Emissions

Cumulative Construction Projects Peak Daily Emissions Estimates

Project No.	Concurrent Construction Project	Estimated Total Total Construction Cost ² (millions)	Start Date	End Date	Carbon Monoxide (CO)																				Peak Quarter (tons/quarter)				
					Year 2014				Year 2015				Year 2016				Year 2017				Year 2018					Year 2019			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
N/A ¹	Midfield Satellite Concourse - North	\$666.50	Jul-14	Jun-19			25.4	37.7	20.6	17.0	20.1	17.4	17.0	8.2	28.0	35.0	33.0	25.3	21.4	17.4	14.6	22.2	28.8	30.6	22.0	0.9			37.7
1	Runway Safety Area Improvements-South Airfield ³	\$106.30	Nov-13	May-15	3.8	3.8	3.8	3.8	3.8	3.8																			3.8
2	Runway Safety Area Improvements-North Airfield ⁴	\$139.10	Jun-14	Jun-19			4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9		4.9
3	LAX Bradley West Project - Remaining Work ⁵	\$603.70	Nov-13	Dec-17	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4									6.4
4	Terminal 3 Connector ⁶	\$175.00	Jul-19	Jan-22																							1.9	1.9	1.9
5	North Terminal Improvements ⁷	\$380.00	Aug-13	Aug-17	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3										0.3
6	South Terminal Improvements ⁷	\$665.00	Nov-11	Feb-18	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6								0.6
7	Central Utility Plant Replacement Project Remaining Work ⁸	\$120.60	Sep-13	Dec-14	1.2	1.2	1.2	1.2																					1.2
8	Miscellaneous Projects and Improvements ⁹	\$945.50	Jan-14	Jul-20	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
9	West Aircraft Maintenance Area Project ¹⁰	\$175.00	Jan-14	Dec-18	6.2	7.4	16.2	14.1	9.8	6.1	1.7						2.4	1.3	1.3	1.3	1.8	1.4							16.2
10	LAX Northside Area Development ¹¹	N/A	Jan-15	Dec-22					7.8	7.8	7.8	7.8	8.8	8.8	8.8	8.8	9.0	9.0	9.0	9.0	6.8	6.8	6.8	6.8	6.5	6.5	6.5	6.5	9.0
11	LAX Master Plan Alt. D/SPAS Development ¹²	\$16,391.00	Jun-15	Jun-25					61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
12	Metro Crenshaw / LAX Transit Corridor and Station ¹³	N/A	Dec-15	Apr-19								4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9			4.9
Total from Other Construction Projects					42.4	43.5	57.3	55.2	57.4	115.4	107.3	110.4	111.4	111.4	111.4	113.9	112.9	112.9	113.0	113.1	104.1	102.1	102.1	102.1	101.8	101.8	93.9	93.9	115.4
Total Cumulative Construction Projects					42.4	43.5	82.6	92.9	78.0	132.5	127.4	127.8	128.4	119.6	139.4	148.9	145.9	138.2	134.4	130.4	118.6	124.3	130.9	132.7	123.8	102.7	93.9	93.9	148.9

Notes:

- 1 N/A – Not Applicable
- 2 Estimated total construction costs for related projects based on Los Angeles International Airport, Capital Improvement Projects (CIP) List (June 18, 2013).
- 3 Construction emissions based on Los Angeles International Airport, Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Projects Draft Environmental Impact Report (DEIR), September 2013.
- 4 Construction emissions for RSA Improvements - North Airfield are estimated based on the proportional construction costs compared to RSA Improvements - South Airfield, given the generally similar nature of improvements.
- 5 Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (total project cost data), Tables 4.4-8 and 4.4-11 (total project emissions data), May 2009.
- 6 Emissions estimates based on same approach as described above for LAX Bradley West Project - Remaining Work.
- 7 Emissions estimates for all terminal renovation projects based on the emission rates associated with the United Airlines (UAL) T-7 Improvements Project, as presented in Table II-2 of the United Airlines T-7 Initial Study (March 2013), given that the nature of construction activity associated with terminal/concourse renovations would be generally comparable to those of the UAL project. The subject emissions rates of the UAL project were applied to terminal renovation projects based on cost ratios (i.e., emissions per million dollars of construction costs).
- 8 Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (cost data); Central Utility Plant Replacement Project Draft EIR, Tables 4.2-11 and 4.2-12, Appendix C Tables 3-1 and 3-2, July 2009.
- 9 Emissions based on average of terminal improvements projects, utilities/infrastructure improvements projects, and airfield operations area (ADA) improvements projects, as applied based on total construction cost.
- 10 Construction emissions based on Los Angeles International Airport, West Aircraft Maintenance Area Project Draft Environmental Impact Report (DEIR), Appendix B.4, October 2013.
- 11 Emissions estimates based on preliminary results for Los Angeles International Airport, Northside Area Development Project Draft Environmental Impact Report (DEIR), Table B.11-3 (total project emissions data), September 2013. Emissions, which were provided in tons per year, were divided by four to obtain tons per quarter.
- 12 As of this date, LAWA had considered nine development alternatives for the LAX Specific Plan Amendment Study (SPAS), and a combination of Alternatives 1 and 9 was approved; however, the implementation of that alternative cannot occur without future review and approval by FAA. As such, it assumed for the purposes of this analysis that the LAX Master Plan Alternative D, as currently approved, and was included in the SPAS analysis as Alternative 3, is
- 13 Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Transit Corridor, Final ES/Final EIR, August 2011. Detailed construction information was not available at the time of this analysis. Estimated emissions based on maximum daily construction emissions presented in the Crenshaw/LAX Transit Corridor Project FEIS/R and converted to tons per quarter based on a 5-day workweek.

LAX MSC North Project Draft EIR
Cumulative Emissions

Cumulative Construction Projects Peak Daily Emissions Estimates

Project No.	Concurrent Construction Project	Estimated Total Total Construction Cost ² (millions)	Start Date	End Date	Volatile Organic Compounds (VOCs)																				Peak Quarter (tons/quarter)				
					Year 2014				Year 2015				Year 2016				Year 2017				Year 2018					Year 2019			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
N/A ¹	Midfield Satellite Concourse - North	\$666.50	Jul-14	Jun-19			2.5	3.5	2.0	1.6	1.9	1.6	1.6	0.8	2.9	3.6	3.5	2.8	2.5	2.0	1.6	2.4	3.1	3.3	2.5	0.1			3.6
1	Runway Safety Area Improvements-South Airfield ³	\$106.30	Nov-13	May-15	0.3	0.3	0.3	0.3	0.3	0.3			0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3									0.3
2	Runway Safety Area Improvements-North Airfield ⁴	\$139.10	Jun-14	Jun-19			0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
3	LAX Bradley West Project - Remaining Work ⁵	\$603.70	Nov-13	Dec-17	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1									1.1
4	Terminal 3 Connector ⁶	\$175.00	Jul-19	Jan-22																						0.3	0.3		0.3
5	North Terminal Improvements ⁷	\$380.00	Aug-13	Aug-17	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1									0.1	
6	South Terminal Improvements ⁷	\$665.00	Nov-11	Feb-18	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3							0.3	
7	Central Utility Plant Replacement Project Remaining Work ⁸	\$120.60	Sep-13	Dec-14	0.2	0.2	0.2	0.2													0.3								0.2
8	Miscellaneous Projects and Improvements ⁹	\$945.50	Jan-14	Jul-20	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
9	West Aircraft Maintenance Area Project ¹⁰	\$175.00	Jan-14	Dec-18	0.5	0.6	1.5	1.2	1.0	0.7	0.3					0.1	0.2	0.2	0.2	0.3	0.2							1.5	
10	LAX Northside Area Development ¹¹	N/A	Jan-15	Dec-22					1.3	1.3	1.3	1.3	3.0	3.0	3.0	3.0	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	1.8	1.8	1.8	1.8	3.0
11	LAX Master Plan Alt. D/SPAS Development ¹²	\$16,391.00	Jun-15	Jun-25						12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
12	Metro Crenshaw / LAX Transit Corridor and Station ¹³	N/A	Dec-15	Apr-19								1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0
Total from Other Construction Projects					8.8	8.9	10.2	9.9	10.7	22.6	21.9	22.7	24.4	24.4	24.4	24.6	23.8	23.8	23.9	23.8	22.3	21.9	21.9	21.9	21.6	21.6	20.6	20.6	24.6
Total Cumulative Construction Projects					8.8	8.9	12.7	13.5	12.7	24.2	23.8	24.3	26.1	25.2	27.4	28.2	27.4	26.6	26.3	25.7	24.0	24.3	25.0	25.2	24.1	21.7	20.6	20.6	28.2

Notes:

- ¹ N/A – Not Applicable
- ² Estimated total construction costs for related projects based on Los Angeles International Airport, Capital Improvement Projects (CIP) List (June 18, 2013).
- ³ Construction emissions based on Los Angeles International Airport, Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Projects Draft Environmental Impact Report (DEIR), September 2013.
- ⁴ Construction emissions for RSA Improvements - North Airfield are estimated based on the proportional construction costs compared to RSA Improvements - South Airfield, given the generally similar nature of improvements.
- ⁵ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (total project cost data), Tables 4.4-8 and 4.4-11 (total project emissions data), May 2009.
- ⁶ Emissions estimates based on same approach as described above for LAX Bradley West Project - Remaining Work.
- ⁷ Emissions estimates for all terminal renovation projects based on the emission rates associated with the United Airlines (UAL) T-7 Improvements Project, as presented in Table II-2 of the United Airlines T-7 Initial Study (March 2013), given that the nature of construction activity associated with terminal/concourse renovations would be generally comparable to those of the UAL project. The subject emissions rates of the UAL project were applied to terminal renovation projects based on cost ratios (i.e., emissions per million dollars of construction costs).
- ⁸ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (cost data); Central Utility Plant Replacement Project Draft EIR, Tables 4.2-11 and 4.2-12, Appendix C Tables 3-1 and 3-2, July 2009.
- ⁹ Emissions based on average of terminal improvements projects, utilities/infrastructure improvements projects, and airfield operations area (ADA) improvements projects, as applied based on total construction cost.
- ¹⁰ Construction emissions based on Los Angeles International Airport, West Aircraft Maintenance Area Project Draft Environmental Impact Report (DEIR), Appendix B.4, October 2013.
- ¹¹ Emissions estimates based on preliminary results for Los Angeles International Airport, Northside Area Development Project Draft Environmental Impact Report (DEIR), Table B.11-3 (total project emissions data), September 2013. Emissions, which were provided in tons per year, were divided by four to obtain tons per quarter.
- ¹² As of this date, LAWA had considered nine development alternatives for the LAX Specific Plan Amendment Study (SPAS), and a combination of Alternatives 1 and 9 was approved; however, the implementation of that alternative cannot occur without future review and approval by FAA. As such, it assumed for the purposes of this analysis that the LAX Master Plan Alternative D, as currently approved, and was included in the SPAS analysis as Alternative 3, is
- ¹³ Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Transit Corridor, Final ES/Final EIR, August 2011. Detailed construction information was not available at the time of this analysis. Estimated emissions based on maximum daily construction emissions presented in the Crenshaw/LAX Transit Corridor Project FEIS/R and converted to tons per quarter based on a 5-day workweek.

LAX MSC North Project Draft EIR
Cumulative Emissions

Cumulative Construction Projects Peak Daily Emissions Estimates

Project No.	Concurrent Construction Project	Estimated Total Total Construction Cost ² (millions)	Start Date	End Date	Nitrogen Oxides (NO _x)																				Peak Quarter (tons/quarter)				
					Year 2014				Year 2015				Year 2016				Year 2017				Year 2018					Year 2019			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
N/A ¹	Midfield Satellite Concourse - North	\$666.50	Jul-14	Jun-19			22.9	36.1	5.3	3.1	3.8	3.3	3.4	1.7	9.1	12.5	10.7	6.7	6.2	4.7	3.8	5.7	9.3	10.5	9.1	0.4		36.1	
1	Runway Safety Area Improvements-South Airfield ³	\$106.30	Nov-13	May-15	1.1	1.1	1.1	1.1	1.1	1.1																		1.1	
2	Runway Safety Area Improvements-North Airfield ⁴	\$139.10	Jun-14	Jun-19			1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
3	LAX Bradley West Project - Remaining Work ⁵	\$603.70	Nov-13	Dec-17	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1								8.1	
4	Terminal 3 Connector ⁶	\$175.00	Jul-19	Jan-22																						2.4	2.4	2.4	
5	North Terminal Improvements ⁷	\$380.00	Aug-13	Aug-17	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4									0.4	
6	South Terminal Improvements ⁷	\$665.00	Nov-11	Feb-18	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8						0.8	
7	Central Utility Plant Replacement Project Remaining Work ⁸	\$120.60	Sep-13	Dec-14	1.5	1.5	1.5	1.5																				1.5	
8	Miscellaneous Projects and Improvements ⁹	\$945.50	Jan-14	Jul-20	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	
9	West Aircraft Maintenance Area Project ¹⁰	\$175.00	Jan-14	Dec-18	7.8	9.0	13.7	12.0	5.4	3.2	0.9						1.2	0.7	0.7	0.7	1.0	0.8						13.7	
10	LAX Northside Area Development ¹¹	N/A	Jan-15	Dec-22					2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.3	2.3	2.3	2.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
11	LAX Master Plan Alt. D/SPAS Development ¹²	\$16,391.00	Jun-15	Jun-25						157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	157.2	
12	Metro Crenshaw / LAX Transit Corridor and Station ¹³	N/A	Dec-15	Apr-19								8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8		8.8	
	Total from Other Construction Projects				51.9	53.1	59.3	57.6	52.0	207.1	203.7	211.6	211.6	211.6	211.6	212.8	212.0	212.0	212.1	211.9	202.8	201.3	201.3	201.3	201.3	201.3	193.4	212.8	
	Total Cumulative Construction Projects				51.9	53.1	82.2	93.7	57.3	210.2	207.5	214.9	215.0	213.3	220.7	225.3	222.7	218.7	218.3	216.6	206.5	206.9	210.6	211.8	210.3	201.6	193.4	225.3	

Notes:

- ¹ N/A – Not Applicable
- ² Estimated total construction costs for related projects based on Los Angeles International Airport, Capital Improvement Projects (CIP) List (June 18, 2013).
- ³ Construction emissions based on Los Angeles International Airport, Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Projects Draft Environmental Impact Report (DEIR), September 2013.
- ⁴ Construction emissions for RSA Improvements - North Airfield are estimated based on the proportional construction costs compared to RSA Improvements - South Airfield, given the generally similar nature of improvements.
- ⁵ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (total project cost data), Tables 4.4-8 and 4.4-11 (total project emissions data), May 2009.
- ⁶ Emissions estimates based on same approach as described above for LAX Bradley West Project - Remaining Work.
- ⁷ Emissions estimates for all terminal renovation projects based on the emission rates associated with the United Airlines (UAL) T-7 Improvements Project, as presented in Table B-2 of the United Airlines T-7 Initial Study (March 2013), given that the nature of construction activity associated with terminal/concourse renovations would be generally comparable to those of the UAL project. The subject emissions rates of the UAL project were applied to terminal renovation projects based on cost ratios (i.e., emissions per million dollars of construction costs).
- ⁸ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (cost data); Central Utility Plant Replacement Project Draft EIR, Tables 4.2-11 and 4.2-12, Appendix C Tables 3-1 and 3-2, July 2009.
- ⁹ Emissions based on average of terminal improvements projects, utilities/infrastructure improvements projects, and airfield operations area (AOA) improvements projects, as applied based on total construction cost.
- ¹⁰ Construction emissions based on Los Angeles International Airport, West Aircraft Maintenance Area Project Draft Environmental Impact Report (DEIR), Appendix B.4, October 2013.
- ¹¹ Emissions estimates based on preliminary results for Los Angeles International Airport, Northside Area Development Project Draft Environmental Impact Report (DEIR), Table B.11-3 (total project emissions data), September 2013. Emissions, which were provided in tons per year, were divided by four to obtain tons per quarter.
- ¹² As of this date, LAWA had considered nine development alternatives for the LAX Specific Plan Amendment Study (SPAS), and a combination of Alternatives 1 and 9 was approved; however, the implementation of that alternative cannot occur without future review and approval by FAA. As such, it assumed for the purposes of this analysis that the LAX Master Plan Alternative D, as currently approved, and was included in the SPAS analysis as Alternative 3, is
- ¹³ Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Transit Corridor, Final EIS/Final EIR, August 2011. Detailed construction information was not available at the time of this analysis. Estimated emissions based on maximum daily construction emissions presented in the Crenshaw/LAX Transit Corridor Project FES/R and converted to tons per quarter based on a 5-day workweek.

LAX MSC North Project Draft EIR
Cumulative Emissions

Cumulative Construction Projects Peak Daily Emissions Estimates

Project No.	Concurrent Construction Project	Estimated Total Total Construction Cost ² (millions)	Start Date	End Date	Sulfur Oxides (SO _x)																				Peak Quarter (tons/quarter)				
					Year 2014				Year 2015				Year 2016				Year 2017				Year 2018					Year 2019			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
N/A ¹	Midfield Satellite Concourse - North	\$666.50	Jul-14	Jun-19			0.06	0.09	0.05	0.04	0.05	0.05	0.05	0.02	0.09	0.12	0.11	0.08	0.07	0.05	0.05	0.07	0.09	0.09	0.08	0.00		0.12	
1	Runway Safety Area Improvements-South Airfield ³	\$106.30	Nov-13	May-15	-	-	-	-	-	-																		-	
2	Runway Safety Area Improvements-North Airfield ⁴	\$139.10	Jun-14	Jun-19																								-	
3	LAX Bradley West Project - Remaining Work ⁵	\$603.70	Nov-13	Dec-17	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	-	-	-	-	-	-	-	0.02	
4	Terminal 3 Connector ⁶	\$175.00	Jul-19	Jan-22																					0.0	0.0		0.00	
5	North Terminal Improvements ⁷	\$380.00	Aug-13	Aug-17	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01								0.01		
6	South Terminal Improvements ⁷	\$665.00	Nov-11	Feb-18	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01						0.01		
7	Central Utility Plant Replacement Project Remaining Work ⁸	\$120.60	Sep-13	Dec-14	0.01	0.01	0.01	0.01																			0.01		
8	Miscellaneous Projects and Improvements ⁹	\$945.50	Jan-14	Jul-20	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12		
9	West Aircraft Maintenance Area Project ¹⁰	\$175.00	Jan-14	Dec-18	0.02	0.02	0.02	0.03	0.02	0.02	0.01	-					-	-	-	-	-						0.03		
10	LAX Northside Area Development ¹¹	N/A	Jan-15	Dec-22					0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
11	LAX Master Plan Alt. D/SPAS Development ¹²	\$16,391.00	Jun-15	Jun-25					0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17		
12	Metro Crenshaw / LAX Transit Corridor and Station ¹³	N/A	Dec-15	Apr-19								0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03		
	Total from Other Construction Projects				0.18	0.18	0.19	0.18	0.19	0.34	0.33	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.36	0.34	0.33	0.33	0.33	0.33	0.30	0.30		
	Total Cumulative Construction Projects				0.18	0.18	0.25	0.27	0.24	0.38	0.39	0.41	0.41	0.39	0.46	0.48	0.48	0.45	0.43	0.41	0.39	0.39	0.42	0.42	0.40	0.33	0.30		

Notes:

¹ N/A – Not Applicable

² Estimated total construction costs for related projects based on Los Angeles International Airport, Capital Improvement Projects (CIP) List (June 18, 2013).

³ Construction emissions based on Los Angeles International Airport, Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Projects Draft Environmental Impact Report (DEIR), September 2013.

⁴ Construction emissions for RSA Improvements - North Airfield are estimated based on the proportional construction costs compared to RSA Improvements - South Airfield, given the generally similar nature of improvements.

⁵ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (total project cost data), Tables 4.4-8 and 4.4-11 (total project emissions data), May 2009.

⁶ Emissions estimates based on same approach as described above for LAX Bradley West Project - Remaining Work.

⁷ Emissions estimates for all terminal renovation projects based on the emission rates associated with the United Airlines (UAL) T-7 Improvements Project, as presented in Table B-2 of the United Airlines T-7 Initial Study (March 2013), given that the nature of construction activity associated with terminal/concourse renovations would be generally comparable to those of the UAL project. The subject emissions rates of the UAL project were applied to terminal renovation projects based on cost ratios (i.e., emissions per million dollars of construction costs).

⁸ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (cost data); Central Utility Plant Replacement Project Draft EIR, Tables 4.2-11 and 4.2-12, Appendix C Tables 3-1 and 3-2, July 2009.

⁹ Emissions based on average of terminal improvements projects, utilities/infrastructure improvements projects, and airfield operations area (AOA) improvements projects, as applied based on total construction cost.

¹⁰ Construction emissions based on Los Angeles International Airport, West Aircraft Maintenance Area Project Draft Environmental Impact Report (DEIR), Appendix B.4, October 2013.

¹¹ Emissions estimates based on preliminary results for Los Angeles International Airport, Northside Area Development Project Draft Environmental Impact Report (DEIR), Table B.11-3 (total project emissions data), September 2013. Emissions, which were provided in tons per year, were divided by four to obtain tons per quarter.

¹² As of this date, LAWA had considered nine development alternatives for the LAX Specific Plan Amendment Study (SPAS), and a combination of Alternatives 1 and 9 was approved; however, the implementation of that alternative cannot occur without future review and approval by FAA. As such, it assumed for the purposes of this analysis that the LAX Master Plan Alternative D, as currently approved, and was included in the SPAS analysis as Alternative 3, is

¹³ Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Transit Corridor, Final EIS/Final EIR, August 2011. Detailed construction information was not available at the time of this analysis. Estimated emissions based on maximum daily construction emissions presented in the Crenshaw/LAX Transit Corridor Project FEIS/R and converted to tons per quarter based on a 5-day workweek.

LAX MSC North Project Draft EIR
Cumulative Emissions

Cumulative Construction Projects Peak Daily Emissions Estimates

Project No.	Concurrent Construction Project	Estimated Total Total Construction Cost ² (millions)	Start Date	End Date	Respirable Particulate Matter (PM10)																				Peak Quarter (tons/quarter)				
					Year 2014				Year 2015				Year 2016				Year 2017				Year 2018					Year 2019			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
N/A ¹	Midfield Satellite Concourse - North	\$666.50	Jul-14	Jun-19			4.7	8.4	3.8	3.1	3.6	3.1	3.7	1.3	5.8	9.5	7.9	3.3	1.9	1.5	1.3	2.3	4.9	5.7	4.7	0.3		9.5	
1	Runway Safety Area Improvements-South Airfield ³	\$106.30	Nov-13	May-15	0.1	0.1	0.1	0.1	0.1	0.1																		0.1	
2	Runway Safety Area Improvements-North Airfield ⁴	\$139.10	Jun-14	Jun-19			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
3	LAX Bradley West Project - Remaining Work ⁵	\$603.70	Nov-13	Dec-17	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0								2.0	
4	Terminal 3 Connector ⁶	\$175.00	Jul-19	Jan-22																						0.6	0.6	0.6	
5	North Terminal Improvements ⁷	\$380.00	Aug-13	Aug-17	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1									0.1	
6	South Terminal Improvements ⁷	\$665.00	Nov-11	Feb-18	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1							0.1	
7	Central Utility Plant Replacement Project Remaining Work ⁸	\$120.60	Sep-13	Dec-14	0.2	0.2	0.2	0.2													0.1							0.2	
8	Miscellaneous Projects and Improvements ⁹	\$945.50	Jan-14	Jul-20	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	
9	West Aircraft Maintenance Area Project ¹⁰	\$175.00	Jan-14	Dec-18	0.7	0.6	0.6	0.6	0.4	0.2	0.1						0.3	0.1	0.1	0.1	0.2	0.2						0.7	
10	LAX Northside Area Development ¹¹	N/A	Jan-15	Dec-22					0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	
11	LAX Master Plan Alt. D/SPAS Development ¹²	\$16,391.00	Jun-15	Jun-25						64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	
12	Metro Crenshaw / LAX Transit Corridor and Station ¹³	N/A	Dec-15	Apr-19								1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0			1.0	
Total from Other Construction Projects					7.3	7.3	7.5	7.5	7.9	72.2	72.0	72.8	72.8	72.8	72.8	73.1	72.8	72.8	72.9	72.8	70.7	70.4	70.4	70.4	70.4	70.4	69.8	69.8	73.1
Total Cumulative Construction Projects					7.3	7.3	12.2	15.9	11.7	75.3	75.6	76.0	76.5	74.1	78.6	82.6	80.8	76.1	74.7	74.3	72.0	72.7	75.4	76.1	75.1	70.7	69.8	69.8	82.6

Notes:

- 1 N/A – Not Applicable
- 2 Estimated total construction costs for related projects based on Los Angeles International Airport, Capital Improvement Projects (CIP) List (June 18, 2013).
- 3 Construction emissions based on Los Angeles International Airport, Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Projects Draft Environmental Impact Report (DEIR), September 2013.
- 4 Construction emissions for RSA Improvements - North Airfield are estimated based on the proportional construction costs compared to RSA Improvements - South Airfield, given the generally similar nature of improvements.
- 5 Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (total project cost data), Tables 4.4-8 and 4.4-11 (total project emissions data), May 2009.
- 6 Emissions estimates based on same approach as described above for LAX Bradley West Project - Remaining Work.
- 7 Emissions estimates for all terminal renovation projects based on the emission rates associated with the United Airlines (UAL) T-7 Improvements Project, as presented in Table II-2 of the United Airlines T-7 Initial Study (March 2013), given that the nature of construction activity associated with terminal/concourse renovations would be generally comparable to those of the UAL project. The subject emissions rates of the UAL project were applied to terminal renovation projects based on cost ratios (i.e., emissions per million dollars of construction costs).
- 8 Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (cost data); Central Utility Plant Replacement Project Draft EIR, Tables 4.2-11 and 4.2-12, Appendix C Tables 3-1 and 3-2, July 2009.
- 9 Emissions based on average of terminal improvements projects, utilities/infrastructure improvements projects, and airfield operations area (ADA) improvements projects, as applied based on total construction cost.
- 10 Construction emissions based on Los Angeles International Airport, West Aircraft Maintenance Area Project Draft Environmental Impact Report (DEIR), Appendix B.4, October 2013.
- 11 Emissions estimates based on preliminary results for Los Angeles International Airport, Northside Area Development Project Draft Environmental Impact Report (DEIR), Table B.11-3 (total project emissions data), September 2013. Emissions, which were provided in tons per year, were divided by four to obtain tons per quarter.
- 12 As of this date, LAWA had considered nine development alternatives for the LAX Specific Plan Amendment Study (SPAS), and a combination of Alternatives 1 and 9 was approved; however, the implementation of that alternative cannot occur without future review and approval by FAA. As such, it assumed for the purposes of this analysis that the LAX Master Plan Alternative D, as currently approved, and was included in the SPAS analysis as Alternative 3, is
- 13 Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Transit Corridor, Final EIS/Final EIR, August 2011. Detailed construction information was not available at the time of this analysis. Estimated emissions based on maximum daily construction emissions presented in the Crenshaw/LAX Transit Corridor Project FEIS/R and converted to tons per quarter based on a 5-day workweek.

LAX MSC North Project Draft EIR
Cumulative Emissions

Cumulative Construction Projects Peak Daily Emissions Estimates

Project No.	Concurrent Construction Project	Estimated Total Total Construction Cost ² (millions)	Start Date	End Date	Fine Particulate Matter (PM2.5)																				Peak Quarter (tons/quarter)				
					Year 2014				Year 2015				Year 2016				Year 2017				Year 2018					Year 2019			
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4
N/A ¹	Midfield Satellite Concourse - North	\$666.50	Jul-14	Jun-19			1.8	3.1	0.8	0.6	0.7	0.6	0.8	0.2	1.3	2.2	1.9	0.8	0.6	0.4	0.2	0.4	1.0	1.2	1.0	0.0		3.1	
1	Runway Safety Area Improvements-South Airfield ³	\$106.30	Nov-13	May-15	0.0	0.0	0.0	0.0	0.0	0.0						0.0	0.0	0.0	0.0									0.0	
2	Runway Safety Area Improvements-North Airfield ⁴	\$139.10	Jun-14	Jun-19			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
3	LAX Bradley West Project - Remaining Work ⁵	\$603.70	Nov-13	Dec-17	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7								0.7	
4	Terminal 3 Connector ⁶	\$175.00	Jul-19	Jan-22																						0.2	0.2	0.2	
5	North Terminal Improvements ⁷	\$380.00	Aug-13	Aug-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0									0.0	
6	South Terminal Improvements ⁷	\$665.00	Nov-11	Feb-18	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1							0.1	
7	Central Utility Plant Replacement Project Remaining Work ⁴	\$120.60	Sep-13	Dec-14	0.1	0.1	0.1	0.1																				0.1	
8	Miscellaneous Projects and Improvements ⁸	\$945.50	Jan-14	Jul-20	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	
9	West Aircraft Maintenance Area Project ¹⁰	\$175.00	Jan-14	Dec-18	0.3	0.3	0.3	0.3	0.2	0.1	0.1					0.2	0.1	0.1	0.1	0.1	0.1							0.3	
10	LAX Northside Area Development ¹¹	N/A	Jan-15	Dec-22					0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
11	LAX Master Plan Alt. D/SPAS Development ¹²	\$16,391.00	Jun-15	Jun-25						10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	
12	Metro Crenshaw / LAX Transit Corridor and Station ¹³	N/A	Dec-15	Apr-19								0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		0.6	
	Total from Other Construction Projects				2.9	2.9	2.9	2.9	3.0	13.1	13.0	13.5	13.5	13.5	13.6	13.5	13.5	13.5	13.5	13.5	12.8	12.6	12.6	12.6	12.6	12.6	12.2	12.2	13.6
	Total Cumulative Construction Projects				2.9	2.9	4.7	6.1	3.8	13.7	13.7	14.2	14.3	13.7	14.8	15.9	15.4	14.3	14.1	13.9	13.0	13.0	13.7	13.8	13.6	12.7	12.2	12.2	15.9

Notes:

- ¹ N/A – Not Applicable
- ² Estimated total construction costs for related projects based on Los Angeles International Airport, Capital Improvement Projects (CIP) List (June 18, 2013).
- ³ Construction emissions based on Los Angeles International Airport, Runway 7L/25R Runway Safety Area (RSA) and Associated Improvements Projects Draft Environmental Impact Report (DEIR), September 2013.
- ⁴ Construction emissions for RSA Improvements - North Airfield are estimated based on the proportional construction costs compared to RSA Improvements - South Airfield, given the generally similar nature of improvements.
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- ⁶ Emissions estimates based on same approach as described above for LAX Bradley West Project - Remaining Work.
- ⁷ Emissions estimates for all terminal renovation projects based on the emission rates associated with the United Airlines (UAL) T-7 Improvements Project, as presented in Table II-2 of the United Airlines T-7 Initial Study (March 2013), given that the nature of construction activity associated with terminal/concourse renovations would be generally comparable to those of the UAL project. The subject emissions rates of the UAL project were applied to terminal renovation projects based on cost ratios (i.e., emissions per million dollars of construction costs).
- ⁸ Emissions estimates reflect the ratio of total project costs to the total project emissions as applied to cost of the remaining improvements, based on Los Angeles International Airport, Bradley West Project Draft Environmental Impact Report (DEIR), Table 4.3-9 (cost data); Central Utility Plant Replacement Project Draft EIR, Tables 4.2-11 and 4.2-12, Appendix C Tables 3-1 and 3-2, July 2009.
- ⁹ Emissions based on average of terminal improvements projects, utilities/infrastructure improvements projects, and airfield operations area (ADA) improvements projects, as applied based on total construction cost.
- ¹⁰ Construction emissions based on Los Angeles International Airport, West Aircraft Maintenance Area Project Draft Environmental Impact Report (DEIR), Appendix B.4, October 2013.
- ¹¹ Emissions estimates based on preliminary results for Los Angeles International Airport, Northside Area Development Project Draft Environmental Impact Report (DEIR), Table B.11-3 (total project emissions data), September 2013. Emissions, which were provided in tons per year, were divided by four to obtain tons per quarter.
- ¹² As of this date, LAWA had considered nine development alternatives for the LAX Specific Plan Amendment Study (SPAS), and a combination of Alternatives 1 and 9 was approved; however, the implementation of that alternative cannot occur without future review and approval by FAA. As such, it assumed for the purposes of this analysis that the LAX Master Plan Alternative D, as currently approved, and was included in the SPAS analysis as Alternative 3, is
- ¹³ Los Angeles County Metropolitan Transportation Authority, Crenshaw/LAX Transit Corridor, Final ES/Final EIR, August 2011. Detailed construction information was not available at the time of this analysis. Estimated emissions based on maximum daily construction emissions presented in the Crenshaw/LAX Transit Corridor Project FEIS/R and converted to tons per quarter based on a 5-day workweek.

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Aircraft Fleet Mix, Engine Assignments and Annual Operations
 - 2012
 - 2019
 - 2025
- 2013 GSE Survey
- GSE Emission Factors
- GSE GHG Calculations
- Busing Operations Emissions
- Criteria Pollutants – EDMS Inventory Outputs
 - 2012 Existing
 - 2012 With Project
 - 2012 With Program
 - 2019 Without Project
 - 2019 With Project
 - 2025 Without Program
 - 2025 With Program
- On-Airport Traffic Emissions
- GHG – EDMS Inventory Outputs
 - 2012 Existing
 - 2012 With Project
 - 2012 With Program
 - 2019 Without Project
 - 2019 With Project
 - 2025 Without Program
 - 2025 With Program
- GHGs – Aircraft Emissions
- CalEEMod Annual Reports
 - 2012 Existing
 - 2012 With Project
 - 2012 With Program
 - 2019 Without Project
 - 2019 With Project
 - 2025 Without Program
 - 2025 With Program

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Aircraft Fleet Mix, Engine Assignments and Annual Operations
 - 2012
 - 2019
 - 2025

**MSC North Project Draft EIR
LAX 2012 Fleet Mix**

<u>Aircraft</u> <u>Category</u>	<u>Schedule</u> <u>Aircraft</u>	<u>Peak Daily</u> <u>Operations</u>	<u>SIMMOD</u> <u>Aircraft</u>	<u>EDMS</u> <u>Aircraft</u>	<u>EDMS</u> <u>Engine</u>	<u>Annual</u> <u>Operations</u>	<u>Weight</u> <u>Class</u>
AC	A306	4	306	A300F4-6	CF6-80C2A5F	1330	H
AC	319	63	319	A319-1	V2527M-A5	20942	L
AC	320	186	320	A320-2	V2527-A5	61829	L
AC	321	32	321	A321-1	V2533-A5	10637	L
AC	332	10	332	A330-2	Trent 772	3324	H
AC	342	2	342	A340-2	CFM56-5C4	665	H
AC	343	6	343	A340-3	CFM56-5C4	1994	H
AC	345	2	345	A340-5	Trent 553-61	665	H
AC	346	6	346	A340-6	Trent 556-61	1994	H
AC	388	10	388	A380-8	GP7270	3324	H
AC	733	90	733	B737-3	CFM56-3-B1	29917	L
AC	734	13	734	B737-4	CFM56-3C-1	4321	L
AC	735	8	735	B737-5	CFM56-3-B1	2659	L
AC	737	160	737	B737-7	CFM56-7B22	53187	L
AC	738	153	738	B737-8	CFM56-7B26	50860	L
AC	739	33	739	B737-9	CFM56-7B27	10970	L
AC	742	2	742	B747-2	JT9D-7F	665	H
AC	744	38	744	B747-4	CF6-80C2B1F	12632	H
AC	752	165	752	B757-2	PW2037	54849	L
AC	753	43	753	B757-3	RB211-535E4B	14294	L
AC	762	22	762	B767-2	CF6-80A2	7313	H
AC	763	37	763	B767-3	CF6-80C2B7F	12299	H
AC	772	60	772	B777-2	PW4090	19945	H
AC	773	16	773	B777-3	GE90-115B	5319	H
AC	73H	8	73H	B737-7	CFM56-7B22	2659	L
AC	77L	4	77L	B777-2LR	GE90-110B1	1330	H
AC	788	2	-	B787-8	GEnx-1B64	665	H
AC	A30B	4	A300	A300B4-2	CF6-50C2	1330	H
GA	B190	6	BE19	BEECH1900-D	PT6A-67D	2391	S
AT	BE1	10	BE19	BEECH1900-D	PT6A-67D	3751	S
MIL	C130	2	C130	MIL-C130	501D22A	662	S
AT	CVLT	1	C210	CV580	501D22A	375	L
GA	CL30	2	CL300	CL300	AE3007A1	797	L
GA	C750	2	CL600	CL600	ALF 502L-2	797	L
AT	C750	2	CL600	CL600	ALF 502L-2	750	L
MIL	CL60	4	CL600	CL600	ALF 502L-2	1325	L
GA	BE20	2	C441	BEECH200	PT6A-42	797	S
AT	P180	2	C441	BEECH200	PT6A-42	750	S
GA	C550	2	C550	CNA560	JT15D-5, -5A, -5B	797	S
AT	GALX	2	C550	CNA560	JT15D-5, -5A, -5B	750	S
GA	GLEX	2	C550	CNA560	JT15D-5, -5A, -5B	797	S
AC	CR7	142	CR7	CRJ7	CF34-8C1	47203	L
AC	CR9	32	CR9	CRJ9	CF34-8C5	10637	L
AT	CRJ	58	CRJ	CRJ1	CF34-3A1	21757	L
AC	DC10	6	DC10F	DC10-1	CF6-6D	1994	H
AC	DH4	20	DH4	DHC8Q-4	PW150A	6648	L
AC	E90	15	E90	ERJ190	CF34-10E5A1	4986	L
AT	EM2	110	EM2	EMB120	PW118B	41264	S
AT	ERD	84	ERJ140	ERJ140	AE3007A1/3	31510	L
AT	ERJ	4	ERJ	ERJ145-LR	AE3007A1	1500	L
GA	E135	2	ERJ140	ERJ140	AE3007A1/3	797	L
GA	F2TH	2	FAL20	FAL2000EX	PW308C	797	S
GA	GLF3	2	GIIB	GULF2-B	F113-RR-100	797	L
GA	F900	2	GIV	GULF4-SP	TAY Mk611-8	797	L
GA	GLF4	6	GIV	GULF4-SP	TAY Mk611-8	2391	L
GA	GLF5	4	GIV	GULF4-SP	TAY Mk611-8	1594	L
Mil	H25B	2	HS125	HS125-7	TFE731-3	662	S
GA	H25B	2	HS125	HS125-7	TFE731-3	797	S
GA	FA50	2	LEAR35	LEAR35	TFE731-2-2B	797	S
GA	LJ35	2	LEAR35	LEAR35	TFE731-2-2B	797	S
GA	LJ45	4	LEAR35	LEAR35	TFE731-2-2B	1594	S
AC	M80	46	M80	MD83	JT8D-219	15291	L
AC	MD11	8	MD11	MD11	CF6-80C2D1F	2659	H
GA	BE40	2	MU3001	BEECH400	JT15D-5, -5A, -5B	797	S
AT	C56X	2	MU3001	BEECH400	JT15D-5, -5A, -5B	750	S
Totals		1777	605480				

**MSC North Project Draft EIR
LAX 2019 Fleet Mix**

<u>Aircraft</u> <u>Category</u>	<u>Schedule</u> <u>Aircraft</u>	<u>Peak Daily</u> <u>Operations</u>	<u>SIMMOD</u> <u>Aircraft</u>	<u>EDMS</u> <u>Aircraft</u>	<u>EDMS</u> <u>Engine</u>	<u>Annual</u> <u>Operations</u>	<u>Weight</u> <u>Class</u>
AC	319	63	319	A319-1	V2527M-A5	21462	L
AC	320	175	320	A320-2	V2527-A5	59615	L
AC	321	55	321	A321-1	V2533-A5	18736	L
AC	332	8	332	A330-2	Trent 772	2725	H
AC	343	6	343	A340-3	CFM56-5C4	2044	H
AC	345	2	345	A340-5	Trent 553-61	681	H
AC	346	6	346	A340-6	Trent 556-61	2044	H
AC	388	20	388	A380-8	GP7270	6813	H
AC	733	92	733	B737-3	CFM56-3-B1	31341	L
AC	734	13	734	B737-4	CFM56-3C-1	4429	L
AC	735	12	735	B737-5	CFM56-3-B1	4088	L
AC	737	162	737	B737-7	CFM56-7B22	55187	L
AC	738	161	738	B737-8	CFM56-7B26	54846	L
AC	739	43	739	B737-9	CFM56-7B27	14648	L
AC	742	2	742	B747-2	JT9D-7F	681	H
AC	744	46	744	B747-4	CF6-80C2B1F	15670	H
AC	748	8	748	B747-8I	GE90-2B67	2725	H
AC	752	166	752	B757-2	RB211-535E4B	56549	L
AC	753	43	753	B757-3	RB211-535E4B	14648	L
AC	762	22	762	B767-2	CF6-80A2	7495	H
AC	763	56	763	B767-3	CF6-80C2B7F	19077	H
AC	772	52	772	B777-2	GE90-90B	17714	H
AC	788	4	-	B787-8	GE90-1B64	1363	H
AC	773	16	773	B777-3	GE90-115B	5451	H
AC	73H	6	73H	B737-7	CFM56-7B22	2044	L
AC	77L	4	77L	B777-2LR	GE90-110B1	1363	H
AC	A306	4	306	A300F4-6	CF6-80C2A5F	1363	H
AC	A30B	4	A300	A300B4-2	CF6-50C2	1363	H
AC	A310	2	A310	A310-2	CF6-80A3	681	L
GA	B190	6	BE19	BEECH1900-D	PT6A-67D	2044	S
AT	BE1	10	BE19	BEECH1900-D	PT6A-67D	3407	S
GA	BE20	2	CNA441	BEECH200	PT6A-42	681	S
GA	BE40	2	MU3001	BEECH400	JT15D-5, -5A, -5B	681	S
MIL	C130	2	C130	MIL-C130	501D22A	681	S
GA	C550	2	CNA500	CNA560	JT15D-5, -5A, -5B	681	S
AT	C56X	2	MU3001	BEECH400	JT15D-5, -5A, -5B	681	S
AT	C750	2	CL600	CL600	ALF 502L-2	681	L
GA	C750	2	CL600	CL600	ALF 502L-2	681	L
GA	CL30	2	CL300	CL300	AE3007A1	681	L
GA	CL60	2	CL600	CL600	ALF 502L-2	681	L
MIL	CL60	2	CL600	CL600	ALF 502L-2	681	L
AC	CR7	148	CR7	CRJ7	CF34-8C1	50418	L
AC	CR9	32	CR9	CRJ9	CF34-8C5	10901	L
AT	CRJ	58	CRJ	CRJ1	CF34-3A1	19758	L
AT	CVLT	1	C210	CV580	501D22A	341	L
AC	DC10	6	DC10F	DC10-1	CF6-6D	2044	H
AC	DC87	2	DC87	DC8-7	CFM56-2C	681	H
AC	DH4	22	DH4	DHC8Q-4	PW150A	7495	L
GA	E135	2	ERJ140	ERJ140	AE3007A1/3	681	L
AC	E90	15	E90	ERJ190	CF34-10E5A1	5110	L
AT	EM2	114	EM2	EMB120	PW118B	38835	S
AT	ERD	84	ERJ140	ERJ140	AE3007A1/3	28615	L
AT	ERJ	2	ERJ	ERJ145-LR	AE3007A1	681	L
GA	F2TH	2	FAL20	FAL2000EX	PW308C	681	S
GA	F900	2	GIV	GULF4-SP	TAY Mk611-8	681	L
GA	FA50	2	LEAR35	LEAR35	TFE731-2-2B	681	S
AT	GALX	2	CNA500	CNA560	JT15D-5, -5A, -5B	681	S
GA	GLEK	2	CNA500	CNA560	JT15D-5, -5A, -5B	681	S
GA	GLF3	2	GIIB	GULF2-B	F113-RR-100	681	L
GA	GLF4	6	GIV	GULF4-SP	TAY Mk611-8	2044	L
GA	GLF5	4	GIV	GULF4-SP	TAY Mk611-8	1363	L
Mil	H25B	2	HS125	HS125-7	TFE731-3	681	S
GA	H25B	2	HS125	HS125-7	TFE731-3	681	S
GA	LJ35	2	LEAR35	LEAR35	TFE731-2-2B	681	S
Mil	LJ45	2	LEAR35	LEAR35	TFE731-2-2B	681	S
GA	LJ45	2	LEAR35	LEAR35	TFE731-2-2B	681	S
AC	M80	36	M80	MD83	JT8D-219	12264	L
AC	MD11	8	MD11	MD11	CF6-80C2D1F	2725	H
AT	P180	2	CNA441	BEECH200	PT6A-42	681	S
Total		1853	631242				

**MSC North Project Draft EIR
LAX 2025 Fleet Mix**

<u>Aircraft</u> <u>Category</u>	<u>Schedule</u> <u>Aircraft</u>	<u>Peak Daily</u> <u>Operations</u>	<u>SIMMOD</u> <u>Aircraft</u>	<u>EDMS</u> <u>Aircraft</u>	<u>EDMS</u> <u>Engine</u>	<u>Annual</u> <u>Operations</u>	<u>Weight</u> <u>Class</u>
AC	788	13	788	B787-800	User Defined	4472	H
AC	789	20	789	B787-900	User Defined	6880	H
AC	A306	6	306	A300F4-6	CF6-80C2A5F	2064	H
AC	A310	2	A310	A310-2	CF6-80A3	688	L
AC	319	54	319	A319-1	V2527M-A5	18576	L
AC	320	219	320	A320-2	V2527-A5	75299	L
AC	330	6	333	A330-3	CF6-80C2B8FA	2064	H
AC	343	22	343	A340-3	CFM56-5C4	7568	H
AC	388	27	388	A380-8	GP7270	9284	H
AC	733	72	733	B737-3	CFM56-3-B1	24761	L
AC	737	217	737	B737-7	CFM56-7B22	74607	L
AC	738	302	738	B737-8	CFM56-7B26	104165	L
AC	744	77	744	B747-4	CF6-80C2B1F	26481	H
AC	752	184	752	B757-2	PW2037	63263	L
AC	763	190	763	B767-3	CF6-80C2B7F	65321	H
AC	772	89	772	B777-2	PW4090	30607	H
AC	DC10	5	DC10F	DC10-1	CF6-6D	1720	H
AC	DC87	2	DC87	DC8-7	CFM56-2C	688	H
AC	MD11	10	MD11	MD11	CF6-80C2D1F	3440	H
AC	M80	16	M80	MD83	JT8D-219	5504	L
AC	CR7	207	CR7	CRJ7	CF34-8C1	71170	L
GA	P180	2	C441	CNA441	TPE331-10	688	S
GA	C750	51	C750	CNA750	AE3007C	17533	S
AT	EM2	136	EM2	EMB120	PW118B	46751	S
AT	ERD	86	ERJ140	ERJ140	AE3007A1/3	29581	L
AC	E90	20	E90	ERJ190-LR	AE3007A1/3	6880	L
MIL	C130	2	C130	MIL-C130	501D22A	688	S
GA	BE18	7	BE19	BEECH18	TPE331-1	2407	S
GA	B190	12	BE19	BEECH1900-D	PT6A-67D	4126	S
Totals		2053				707276	

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- 2013 GSE Survey

LAX MSC North Project Draft EIR
2013 Ground Support Equipment Survey

<u>Equipment Type</u>	<u>Number of Units</u>				<u>Total</u>
	<u>Diesel</u>	<u>Gasoline</u>	<u>Electric</u>	<u>LPG/CNG</u>	
Air Conditioner	10	0	0	0	10
Air Start Unit	34	0	1	0	35
Aircraft Tractor	146	1	46	0	193
Baggage Tug	53	152	298	147	650
Belt Loader	28	34	158	39	259
Bobtail	14	7	0	0	21
Cargo Loader	145	6	13	1	165
Cargo Tractor	35	28	161	23	247
Cart	1	8	129	0	138
Catering Truck	113	15	2	0	130
Deicer	0	1	0	0	1
Forklift	24	32	62	204	322
Fuel Truck	34	0	0	1	35
Generator	4	2	0	0	6
Ground Power Units	85	0	28	0	113
Hydrant Truck	0	0	19	0	19
Lavatory Cart	0	2	2	0	4
Lavatory Truck	14	12	4	0	30
Lift	14	13	24	8	59
Other	63	59	11	14	147
Passenger Stand	6	16	10	1	33
Service Truck	34	26	10	3	73
Sweeper	1	3	19	3	26
Water Truck	2	4	2	0	8
Total	860	421	999	444	2724

Source: CDM Smith, May 2013.

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GSE Emission Factors

LAX MSC North Project Draft EIR
Ground Service Equipment Emissions Factors (2012)

Equipment	Fuel	2012 Pop	HP	2012 Emission Factors (g/hp-hr)							
				Criteria Pollutants					Greenhouse Gases		
				CO	HC	NOx	SO2	PM	CO2	N2O	CH4
Air Cond-S_2012_D	Diesel	4	135	3.0133	0.3458	3.5036	0.0064	0.1750	568.2998	0.0000	0.0312
Air Cond-L_2012_D	Diesel	6	314	1.0017	0.2473	2.8116	0.0064	0.0905	568.2982	0.0000	0.0223
Air Start-S_2012_D	Diesel	15	286	1.2251	0.3040	4.0190	0.0056	0.1203	568.3000	0.0000	0.0274
Air Start-L_2012_D	Diesel	19	615	1.2251	0.3141	4.1349	0.0056	0.1222	568.3000	0.0000	0.0283
Aircraft Tractor-S_2012_D	Diesel	74	113	2.2368	0.7251	7.6884	0.0064	0.5960	568.2999	0.0000	0.0685
Aircraft Tractor-M_2012_D	Diesel	44	258	3.4251	0.4361	7.0730	0.0056	0.2718	568.3000	0.0000	0.0629
Aircraft Tractor-L_2012_D	Diesel	28	371	3.4251	0.2386	5.1603	0.0056	0.1495	568.3000	0.0000	0.0629
Aircraft Tractor-M_2012_G	Gasoline	1	200	26.0157	0.4646	3.0182	0.0075	0.0600	731.9998	0.0439	0.0204
Bag Tractor_2012_D	Diesel	53	90	4.3635	1.2446	11.9957	0.0067	0.9424	568.3001	0.0000	0.1227
Bag Tractor_2012_G	Gasoline	152	79	32.6396	1.0673	2.9478	0.0075	0.0600	774.4999	0.1106	0.0311
Bag Tractor_2012_L	CNG/LPG	147	88	29.6272	0.1568	5.8686	0.0000	0.0600	674.6601	0.0000	1.3141
Belt Loader_2012_D	Diesel	28	72	4.1846	1.0856	10.4109	0.0067	0.8454	568.2998	0.0000	0.1121
Belt Loader_2012_G	Gasoline	34	93	34.3084	1.6562	3.2313	0.0075	0.0600	774.4999	0.1522	0.0378
Belt Loader_2012_L	CNG/LPG	39	69	26.3025	0.1244	5.4943	0.0000	0.0600	674.6599	0.0000	1.0425
Bobtail_2012_D	Diesel	14	238	4.0616	0.2906	6.0174	0.0067	0.1437	568.2998	0.0000	0.1062
Bobtail_2012_G	Gasoline	7	238	32.6043	1.0672	2.9459	0.0075	0.0600	774.4999	0.1106	0.0311
Cargo Loader-S_2012_D	Diesel	138	99	4.0077	0.4774	5.6020	0.0067	0.4388	568.3001	0.0000	0.0969
Cargo Loader-L_2012_D	Diesel	7	338	4.0077	0.1874	4.6653	0.0067	0.1229	568.3001	0.0000	0.0969
Cargo Loader-S_2012_G	Gasoline	2	102	34.8287	1.7066	3.5339	0.0075	0.0600	774.5001	0.1466	0.0449
Cargo Loader-L_2012_G	Gasoline	4	200	34.8287	1.7066	3.5339	0.0075	0.0600	774.5001	0.1466	0.0449
Cargo Loader-S_2012_L	CNG/LPG	1	102	32.0452	0.1803	6.1408	0.0000	0.0600	674.6601	0.0000	1.5116
Cargo Tractor-S_2012_D	Diesel	23	74	4.0781	1.0209	9.2355	0.0064	0.8726	568.3000	0.0000	0.0970
Cargo Tractor-L_2012_D	Diesel	12	285	4.0781	0.5491	8.4582	0.0064	0.3654	568.3000	0.0000	0.0970
Cargo Tractor-S_2012_G	Gasoline	20	90	67.6690	2.5218	5.8972	0.0064	0.0600	774.5000	0.1576	0.1156
Cargo Tractor-L_2012_G	Gasoline	8	210	67.6690	2.5218	5.8972	0.0064	0.0600	774.5000	0.1576	0.1156
Cargo Tractor-S_2012_L	CNG/LPG	10	95	17.6658	0.0597	4.9044	0.0000	0.0600	674.6603	0.0000	0.5001
Cargo Tractor-L_2012_L	CNG/LPG	13	160	17.6658	0.0597	4.9044	0.0000	0.0600	674.6603	0.0000	0.5001
Cart_2012_D	Diesel	1	46	3.4131	0.8394	6.5244	0.0073	0.3695	568.2999	0.0000	0.0757
Cart_2012_G	Gasoline	8	24	265.4690	7.2338	3.6584	0.0122	0.2164	429.4401	0.3524	0.2642
Catering Truck_S_2012_D	Diesel	50	165	1.0422	0.2611	3.7365	0.0064	0.1016	568.3000	0.0000	0.0236
Catering Truck_L_2012_D	Diesel	63	250	1.0422	0.2611	3.7365	0.0064	0.1016	568.3000	0.0000	0.0236
Catering Truck_S_2012_G	Gasoline	4	145	31.3189	1.4579	8.1016	0.0064	0.0600	731.9999	0.1309	0.0676
Catering Truck_L_2012_G	Gasoline	11	370	31.3189	1.4579	8.1016	0.0064	0.0600	731.9999	0.1309	0.0676
Deicer_2012_G	Gasoline	1	10	25.8753	9.6129	6.1357	0.0075	0.0600	774.4999	0.1220	0.0663
Fork Lift-S_2012_D	Diesel	2	42	3.1702	1.6667	6.1536	0.0064	0.6544	568.3000	0.0000	0.0570
Fork Lift-M_2012_D	Diesel	6	90	3.1702	0.7382	7.7917	0.0064	0.6024	568.3000	0.0000	0.0570
Fork Lift-L_2012_D	Diesel	16	170	3.1702	0.5427	7.2714	0.0064	0.3886	568.3000	0.0000	0.0570
Fork Lift-S_2012_G	Gasoline	22	17	106.1315	3.4123	2.8924	0.0095	0.0600	783.3000	0.2000	0.0737
Fork Lift-M_2012_G	Gasoline	10	93	106.1315	3.4123	2.8924	0.0095	0.0600	783.3000	0.2000	0.0737
Fork Lift-L_2012_L	CNG/LPG	159	45	8.3504	0.0353	2.4684	0.0000	0.0600	674.6600	0.0000	0.2962
Fork Lift-M_2012_L	CNG/LPG	26	90	8.3504	0.0353	2.4684	0.0000	0.0600	674.6600	0.0000	0.2962
Fork Lift-S_2012_L	CNG/LPG	19	170	8.3504	0.0353	2.4684	0.0000	0.0600	674.6600	0.0000	0.2962
Fuel Truck_2012_D	Diesel	34	161	1.2604	0.3993	4.7183	0.0064	0.1469	568.2999	0.0000	0.0360
Fuel Truck_2012_L	CNG/LPG	1	95	20.8066	0.0748	5.3209	0.0000	0.0600	674.6600	0.0000	0.6269
Generator_2012_D	Diesel	4	124	3.3875	0.7297	5.4274	0.0064	0.3249	568.3001	0.0000	0.0658
Generator_2012_G	Gasoline	2	10	60.7943	3.2459	7.4793	0.0064	0.0600	774.5000	0.1415	0.1624
GPU-S_2012_D	Diesel	53	160	3.2305	0.6386	5.1181	0.0064	0.2936	568.3001	0.0000	0.0576
GPU-L_2012_D	Diesel	32	244	3.2305	0.6386	5.1181	0.0064	0.2936	568.3001	0.0000	0.0576
Lavatory Cart_2012_G	Gasoline	2	50	258.2291	7.2517	3.6832	0.0122	0.2164	429.4400	0.3524	0.2642
Lavatory Truck_2012_D	Diesel	14	187	3.3381	0.7088	5.3992	0.0064	0.3192	568.3000	0.0000	0.0640
Lavatory Truck_2012_G	Gasoline	12	156	30.2255	1.4801	4.4690	0.0075	0.0600	753.2499	0.1699	0.0420
Lift-S_2012_D	Diesel	7	65	3.8594	0.5975	6.2918	0.0067	0.5189	568.3000	0.0000	0.0850
Lift-L_2012_D	Diesel	7	171	3.8594	0.1376	2.9128	0.0067	0.1301	568.3000	0.0000	0.0850
Lift-S_2012_G	Gasoline	11	110	39.6641	2.8902	6.7479	0.0075	0.0600	774.4997	0.1686	0.1059
Lift-L_2012_G	Gasoline	2	285	39.6641	2.8902	6.7479	0.0075	0.0600	774.4997	0.1686	0.1059
Lift_S_2012_L	CNG/LPG	8	64	23.7902	0.0999	5.2114	0.0000	0.0600	674.6602	0.0000	0.8372
Other-S_2012_D	Diesel	18	69	3.4131	0.5633	6.0414	0.0073	0.5119	568.2999	0.0000	0.0757
Other-L_2012_D	Diesel	45	158	3.4131	0.5434	7.1781	0.0073	0.3813	568.2999	0.0000	0.0757
Other-S_2012_G	Gasoline	13	59	85.9216	6.0448	4.8103	0.0095	0.0600	783.2998	0.1970	0.1376
Other-L_2012_G	Gasoline	46	143	85.9216	6.0448	4.8103	0.0095	0.0600	783.2998	0.1970	0.1376
Other-S_2012_L	CNG/LPG	14	140	11.3272	0.1642	7.0553	0.0000	0.0600	674.6602	0.0000	1.3766
Pass Stand_2012_D	Diesel	6	74	3.3242	0.5048	6.2106	0.0067	0.4193	568.2999	0.0000	0.0590
Pass Stand_2012_G	Gasoline	16	198	24.6524	2.0076	6.9632	0.0067	0.0600	753.2500	0.1419	0.0458
Pass Stand_2012_L	CNG/LPG	1	120	16.5622	0.0543	4.7580	0.0000	0.0600	674.6601	0.0000	0.4556
Service Truck_2012_D	Diesel	34	208	3.0406	0.5688	5.0160	0.0064	0.2600	568.3000	0.0000	0.0513
Service Truck_2012_G	Gasoline	26	197	29.8747	1.9305	7.9006	0.0075	0.0600	732.0001	0.2136	0.0632
Service Truck_2012_L	CNG/LPG	3	150	23.7626	0.0738	4.0179	0.0000	0.0600	674.6599	0.0000	0.6186
Sweeper_2012_D	Diesel	1	210	3.3736	0.5666	4.7177	0.0064	0.3325	568.3000	0.0000	0.0511
Sweeper_2012_G	Gasoline	3	47	39.1203	3.7489	6.7150	0.0064	0.0600	774.4997	0.2234	0.1040
Sweeper_2012_L	CNG/LPG	3	23	8.0707	0.0718	5.3503	0.0000	0.0600	674.6600	0.0000	0.6021
Water Truck_2012_D	Diesel	2	135	3.4131	0.8394	6.5244	0.0073	0.3695	568.2999	0.0000	0.0757
Water Truck_2012_G	Gasoline	4	295	25.5756	2.8048	7.1259	0.0075	0.0600	753.2503	0.2192	0.0490

LAX MSC North Project Draft EIR
Ground Service Equipment Emissions Factors (2019)

Equipment	Fuel	2012 Pop	HP	2019 Emission Factors (g/hp-hr)							
				Criteria Pollutants					Greenhouse Gases		
				CO	HC	NOx	SO2	PM	CO2	N2O	CH4
Air Cond-S_2012_D	Diesel	4	135	3.0230	0.1995	1.3534	0.0064	0.0484	568.2998	0.0000	0.0180
Air Cond-L_2012_D	Diesel	6	314	1.0023	0.1691	0.8713	0.0064	0.0244	568.2981	0.0000	0.0153
Air Start-S_2012_D	Diesel	15	286	1.0193	0.1994	2.0283	0.0056	0.0638	568.3000	0.0000	0.0180
Air Start-L_2012_D	Diesel	19	615	1.0193	0.2022	2.0717	0.0056	0.0644	568.3001	0.0000	0.0182
Aircraft Tractor-S_2012_D	Diesel	74	113	1.7639	0.5880	6.3699	0.0064	0.5029	568.2999	0.0000	0.0530
Aircraft Tractor-M_2012_D	Diesel	44	258	2.2672	0.2151	3.8801	0.0056	0.1306	568.3001	0.0000	0.0504
Aircraft Tractor-L_2012_D	Diesel	28	371	2.2672	0.1759	3.2288	0.0056	0.0995	568.3001	0.0000	0.0504
Aircraft Tractor-M_2012_G	Gasoline	1	200	26.0522	0.3697	2.5099	0.0075	0.0600	731.9997	0.0407	0.0151
Bag Tractor_2012_D	Diesel	53	90	4.1768	1.2590	11.9916	0.0067	0.9591	568.3001	0.0000	0.0913
Bag Tractor_2012_G	Gasoline	152	79	32.4361	0.9866	2.7581	0.0075	0.0600	774.5002	0.1079	0.0266
Bag Tractor_2012_L	CNG/LPG	147	88	30.2925	0.0986	3.9803	0.0000	0.0600	674.6599	0.0000	0.8261
Belt Loader_2012_D	Diesel	28	72	4.0077	0.7496	7.2969	0.0067	0.6668	568.3001	0.0000	0.0779
Belt Loader_2012_G	Gasoline	34	93	33.6228	1.4658	2.7920	0.0075	0.0600	774.5001	0.1440	0.0272
Belt Loader_2012_L	CNG/LPG	39	69	26.7446	0.0743	3.4449	0.0000	0.0600	674.6599	0.0000	0.6226
Bobtail_2012_D	Diesel	14	238	3.8964	0.2606	4.1886	0.0067	0.1499	568.2999	0.0000	0.0740
Bobtail_2012_G	Gasoline	7	238	32.4003	0.9867	2.7563	0.0075	0.0600	774.4999	0.1079	0.0266
Cargo Loader-S_2012_D	Diesel	138	99	3.8333	0.2187	3.2000	0.0067	0.1832	568.3001	0.0000	0.0584
Cargo Loader-L_2012_D	Diesel	7	338	3.8333	0.0682	0.8522	0.0067	0.0242	568.3001	0.0000	0.0584
Cargo Loader-S_2012_G	Gasoline	2	102	33.5819	1.3932	2.8008	0.0075	0.0600	774.5000	0.1342	0.0274
Cargo Loader-L_2012_G	Gasoline	4	200	33.5819	1.3932	2.8008	0.0075	0.0600	774.5000	0.1342	0.0274
Cargo Loader-S_2012_L	CNG/LPG	1	102	32.8729	0.1162	4.3698	0.0000	0.0600	674.6601	0.0000	0.9741
Cargo Tractor-S_2012_D	Diesel	23	74	3.9073	0.7077	6.5061	0.0064	0.6136	568.3001	0.0000	0.0568
Cargo Tractor-L_2012_D	Diesel	12	285	3.9073	0.2132	3.4735	0.0064	0.1140	568.3001	0.0000	0.0568
Cargo Tractor-S_2012_G	Gasoline	20	90	69.7559	1.4337	4.0858	0.0064	0.0600	774.4998	0.1344	0.0553
Cargo Tractor-L_2012_G	Gasoline	8	210	69.7559	1.4337	4.0858	0.0064	0.0600	774.4998	0.1344	0.0553
Cargo Tractor-S_2012_L	CNG/LPG	10	95	17.7461	0.0299	2.5364	0.0000	0.0600	674.6600	0.0000	0.2509
Cargo Tractor-L_2012_L	CNG/LPG	13	160	17.7461	0.0299	2.5364	0.0000	0.0600	674.6600	0.0000	0.2509
Cart_2012_D	Diesel	1	46	3.3650	0.6085	4.2523	0.0073	0.2463	568.2998	0.0000	0.0549
Cart_2012_G	Gasoline	8	24	265.4690	6.4753	3.4610	0.0122	0.2167	429.4400	0.3433	0.2515
Catering Truck_S_2012_D	Diesel	50	165	0.9857	0.1577	1.4372	0.0064	0.0418	568.2998	0.0000	0.0142
Catering Truck_L_2012_D	Diesel	63	250	0.9857	0.1577	1.4372	0.0064	0.0418	568.2998	0.0000	0.0142
Catering Truck_S_2012_G	Gasoline	4	145	32.7653	1.1016	4.7764	0.0064	0.0600	732.0001	0.1002	0.0478
Catering Truck_L_2012_G	Gasoline	11	370	32.7653	1.1016	4.7764	0.0064	0.0600	732.0001	0.1002	0.0478
Deicer_2012_G	Gasoline	1	10	15.4130	8.9946	3.1895	0.0075	0.0600	774.4999	0.0883	0.0297
Fork Lift-S_2012_D	Diesel	2	42	3.1761	1.4650	5.7537	0.0064	0.5859	568.3001	0.0000	0.0343
Fork Lift-M_2012_D	Diesel	6	90	3.1761	0.5885	6.0369	0.0064	0.4928	568.3001	0.0000	0.0343
Fork Lift-L_2012_D	Diesel	16	170	3.1761	0.4771	6.1167	0.0064	0.3394	568.3001	0.0000	0.0343
Fork Lift-S_2012_G	Gasoline	22	17	106.1165	3.3352	2.7139	0.0095	0.0600	783.2999	0.1951	0.0694
Fork Lift-M_2012_G	Gasoline	10	93	106.1165	3.3352	2.7139	0.0095	0.0600	783.2999	0.1951	0.0694
Fork Lift-L_2012_L	CNG/LPG	159	45	8.3715	0.0313	2.2630	0.0000	0.0600	674.6600	0.0000	0.2625
Fork Lift-M_2012_L	CNG/LPG	26	90	8.3715	0.0313	2.2630	0.0000	0.0600	674.6600	0.0000	0.2625
Fork Lift-S_2012_L	CNG/LPG	19	170	8.3715	0.0313	2.2630	0.0000	0.0600	674.6600	0.0000	0.2625
Fuel Truck_2012_D	Diesel	34	161	1.1071	0.2745	2.3791	0.0064	0.0764	568.3000	0.0000	0.0248
Fuel Truck_2012_L	CNG/LPG	1	95	21.0979	0.0474	2.9402	0.0000	0.0600	674.6603	0.0000	0.3974
Generator_2012_D	Diesel	4	124	3.3916	0.4541	2.8561	0.0064	0.1582	568.2999	0.0000	0.0410
Generator_2012_G	Gasoline	2	10	64.2002	1.8470	4.8066	0.0064	0.0600	774.4999	0.1141	0.0845
GPU-S_2012_D	Diesel	53	160	3.2499	0.3869	2.6072	0.0064	0.1410	568.2999	0.0000	0.0349
GPU-L_2012_D	Diesel	32	244	3.2499	0.3869	2.6072	0.0064	0.1410	568.2999	0.0000	0.0349
Lavatory Cart_2012_G	Gasoline	2	50	258.2291	6.4987	3.4843	0.0122	0.2167	429.4400	0.3433	0.2515
Lavatory Truck_2012_D	Diesel	14	187	3.3475	0.4414	2.8460	0.0064	0.1578	568.3000	0.0000	0.0398
Lavatory Truck_2012_G	Gasoline	12	156	30.4885	1.2087	2.9508	0.0075	0.0600	753.2501	0.1420	0.0269
Lift-S_2012_D	Diesel	7	65	3.7002	0.3490	3.9554	0.0067	0.2910	568.3000	0.0000	0.0461
Lift-L_2012_D	Diesel	7	171	3.7002	0.0984	1.3777	0.0067	0.0521	568.3000	0.0000	0.0461
Lift-S_2012_G	Gasoline	11	110	34.8116	1.9274	3.8623	0.0075	0.0600	774.5003	0.1284	0.0520
Lift-L_2012_G	Gasoline	2	285	34.8116	1.9274	3.8623	0.0075	0.0600	774.5003	0.1284	0.0520
Lift_S_2012_L	CNG/LPG	8	64	24.0635	0.0559	3.0402	0.0000	0.0600	674.6598	0.0000	0.4688
Other-S_2012_D	Diesel	18	69	3.3650	0.3244	3.9768	0.0073	0.2851	568.2998	0.0000	0.0549
Other-L_2012_D	Diesel	45	158	3.3650	0.3216	4.0819	0.0073	0.2213	568.2998	0.0000	0.0549
Other-S_2012_G	Gasoline	13	59	82.6587	5.0559	2.9804	0.0095	0.0600	783.3001	0.1562	0.0823
Other-L_2012_G	Gasoline	46	143	82.6587	5.0559	2.9804	0.0095	0.0600	783.3001	0.1562	0.0823
Other-S_2012_L	CNG/LPG	14	140	11.6164	0.1110	4.3729	0.0000	0.0600	674.6597	0.0000	0.9306
Pass Stand_2012_D	Diesel	6	74	3.1708	0.2198	4.1726	0.0067	0.1899	568.3002	0.0000	0.0261
Pass Stand_2012_G	Gasoline	16	198	25.3353	1.6084	3.6926	0.0067	0.0600	753.2499	0.1038	0.0235
Pass Stand_2012_L	CNG/LPG	1	120	16.5684	0.0238	2.3946	0.0000	0.0600	674.6599	0.0000	0.1994
Service Truck_2012_D	Diesel	34	208	3.0407	0.3254	2.6992	0.0064	0.1324	568.3000	0.0000	0.0294
Service Truck_2012_G	Gasoline	26	197	31.1615	1.5611	4.5522	0.0075	0.0600	731.9999	0.1618	0.0426
Service Truck_2012_L	CNG/LPG	3	150	24.0209	0.0485	2.3703	0.0000	0.0600	674.6600	0.0000	0.4070
Sweeper_2012_D	Diesel	1	210	3.2480	0.2278	2.5328	0.0064	0.1131	568.3001	0.0000	0.0206
Sweeper_2012_G	Gasoline	3	47	34.0481	2.8016	3.8349	0.0064	0.0600	774.4998	0.1699	0.0511
Sweeper_2012_L	CNG/LPG	3	23	8.1370	0.0390	2.8904	0.0000	0.0600	674.6599	0.0000	0.3266
Water Truck_2012_D	Diesel	2	135	3.3650	0.6085	4.2523	0.0073	0.2463	568.2998	0.0000	0.0549
Water Truck_2012_G	Gasoline	4	295	26.3691	2.4127	3.8499	0.0075	0.0600	753.2499	0.1617	0.0271

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GSE GHG Calculations

LAX MSC North Project Draft EIR
Ground Service Equipment GHG Calculations (2012)

GSE Data							EMISSIONS			
GSE_TYPE	FUEL_TYPE	POPULATION	OPS_ANNUAL	HORSEPOWER	LOADFACTOR		CO2 (MT)	N2O (MT)	CH4 (MT)	CO2e (MT)
Air Cond-S_2012_D	D	4	168	135	0.3350		17.271	0.000	0.001	17.291
Air Cond-L_2012_D	D	6	55	314	0.3350		19.727	0.000	0.001	19.743
Air Start-S_2012_D	D	15	1530	286	0.3350		1249.600	0.000	0.060	1250.867
Air Start-L_2012_D	D	19	60	615	0.3350		133.476	0.000	0.007	133.616
Aircraft Tractor-S_2012_D	D	74	319	113	0.5360		812.537	0.000	0.098	814.595
Aircraft Tractor-M_2012_D	D	44	108	258	0.5360		373.455	0.000	0.041	374.324
Aircraft Tractor-L_2012_D	D	28	171	371	0.5360		541.091	0.000	0.060	542.349
Aircraft Tractor-M_2012_G	G	1	108	200	0.5360		8.475	0.001	0.000	8.637
Bag Tractor_2012_D	D	53	893	90	0.3685		892.042	0.000	0.193	896.086
Bag Tractor_2012_G	G	152	893	79	0.3685		3060.420	0.437	0.123	3198.476
Bag Tractor_2012_L	L	147	893	88	0.3685		2871.931	0.000	5.594	2989.401
Belt Loader_2012_D	D	28	1834	72	0.3350		703.902	0.000	0.139	706.817
Belt Loader_2012_G	G	34	1834	93	0.3350		1504.622	0.296	0.073	1597.830
Belt Loader_2012_L	L	39	1834	69	0.3350		1115.431	0.000	1.724	1151.625
Bobtail_2012_D	D	14	8	238	0.3685		5.582	0.000	0.001	5.604
Bobtail_2012_G	G	7	8	238	0.3685		3.804	0.001	0.000	3.975
Cargo Loader-S_2012_D	D	138	367	99	0.3350		954.559	0.000	0.163	957.976
Cargo Loader-L_2012_D	D	7	101	338	0.3350		45.494	0.000	0.008	45.657
Cargo Loader-S_2012_G	G	2	367	102	0.3350		19.425	0.004	0.001	20.589
Cargo Loader-L_2012_G	G	4	101	200	0.3350		20.964	0.004	0.001	22.220
Cargo Loader-S_2012_L	L	1	367	102	0.3350		8.461	0.000	0.019	8.859
Cargo Tractor-S_2012_D	D	23	31	74	0.3618		10.848	0.000	0.002	10.887
Cargo Tractor-L_2012_D	D	12	5	285	0.3618		3.516	0.000	0.001	3.529
Cargo Tractor-S_2012_G	G	20	31	90	0.3618		15.636	0.003	0.002	16.672
Cargo Tractor-L_2012_G	G	8	5	210	0.3618		2.354	0.000	0.000	2.510
Cargo Tractor-S_2012_L	L	10	31	95	0.3618		7.189	0.000	0.005	7.300
Cargo Tractor-L_2012_L	L	13	5	160	0.3618		2.539	0.000	0.002	2.578
Cart_2012_D	D	1	6	46	0.3350		0.053	0.000	0.000	0.053
Cart_2012_G	G	8	6	24	0.3350		0.166	0.000	0.000	0.210
Catering Truck_S_2012_D	D	50	246	165	0.3350		386.377	0.000	0.016	386.714
Catering Truck_L_2012_D	D	63	684	250	0.3350		2050.969	0.000	0.085	2052.755
Catering Truck_S_2012_G	G	4	246	145	0.3350		34.988	0.006	0.003	36.996
Catering Truck_L_2012_G	G	11	684	370	0.3350		682.663	0.122	0.063	721.836
Deicer_2012_G	G	1	498	10	0.3350		1.292	0.000	0.000	1.358
Fork Lift-S_2012_D	D	2	4	42	0.2010		0.038	0.000	0.000	0.038
Fork Lift-M_2012_D	D	6	9	90	0.2010		0.555	0.000	0.000	0.556
Fork Lift-L_2012_D	D	16	8	170	0.2010		2.486	0.000	0.000	2.491
Fork Lift-S_2012_G	G	22	4	17	0.2010		0.236	0.000	0.000	0.255
Fork Lift-M_2012_G	G	10	9	93	0.2010		1.318	0.000	0.000	1.425
Fork Lift-L_2012_L	L	159	8	45	0.2010		7.762	0.000	0.003	7.834
Fork Lift-M_2012_L	L	26	9	90	0.2010		2.856	0.000	0.001	2.882
Fork Lift-S_2012_L	L	19	4	170	0.2010		1.752	0.000	0.001	1.768
Fuel Truck_2012_D	D	34	234	161	0.3350		243.861	0.000	0.015	244.186
Fuel Truck_2012_L	L	1	234	95	0.3350		5.024	0.000	0.005	5.122
Generator_2012_D	D	4	110	124	0.3350		10.387	0.000	0.001	10.412
Generator_2012_G	G	2	110	10	0.3350		0.571	0.000	0.000	0.606
GPU-S_2012_D	D	53	425	160	0.3350		686.131	0.000	0.070	687.592
GPU-L_2012_D	D	32	434	244	0.3350		645.137	0.000	0.065	646.511
Lavatory Cart_2012_G	G	2	370	50	0.3350		5.323	0.004	0.003	6.746
Lavatory Truck_2012_D	D	14	2992	187	0.3350		1491.261	0.000	0.168	1494.785
Lavatory Truck_2012_G	G	12	2992	156	0.3350		1413.355	0.319	0.079	1513.849
Lift-S_2012_D	D	7	994	65	0.3350		86.103	0.000	0.013	86.374
Lift-L_2012_D	D	7	62	171	0.3350		14.129	0.000	0.002	14.173
Lift-S_2012_G	G	11	994	110	0.3350		312.060	0.068	0.043	334.013
Lift-L_2012_G	G	2	62	285	0.3350		9.169	0.002	0.001	9.814
Lift_S_2012_L	L	8	994	64	0.3350		115.023	0.000	0.143	118.021
Other-S_2012_D	D	18	221	69	0.3350		52.256	0.000	0.007	52.402
Other-L_2012_D	D	45	268	158	0.3350		362.766	0.000	0.048	363.781
Other-S_2012_G	G	13	221	59	0.3350		44.480	0.011	0.008	48.111
Other-L_2012_G	G	46	268	143	0.3350		462.596	0.116	0.081	500.365
Other-S_2012_L	L	14	221	140	0.3350		97.899	0.000	0.200	102.094
Pass Stand_2012_D	D	6	985	74	0.3953		98.248	0.000	0.010	98.462
Pass Stand_2012_G	G	16	985	198	0.3953		929.153	0.175	0.056	984.617
Pass Stand_2012_L	L	1	985	120	0.3953		31.523	0.000	0.021	31.970
Service Truck_2012_D	D	34	2392	208	0.3350		3220.519	0.000	0.291	3226.627
Service Truck_2012_G	G	26	2392	197	0.3350		3004.392	0.877	0.259	3281.598
Service Truck_2012_L	L	3	2392	150	0.3350		243.278	0.000	0.223	247.963
Sweeper_2012_D	D	1	325	210	0.3350		12.993	0.000	0.001	13.018
Sweeper_2012_G	G	3	325	47	0.3350		11.890	0.003	0.002	12.986
Sweeper_2012_L	L	3	325	23	0.3350		5.068	0.000	0.005	5.163
Water Truck_2012_D	D	2	321	135	0.3350		16.500	0.000	0.002	16.546
Water Truck_2012_G	G	4	321	295	0.3350		95.581	0.028	0.006	104.336

Total	32,289
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LAX MSC North Project Draft EIR
Ground Service Equipment GHG Calculations (2019 With Project)

GSE Data							EMISSIONS			
GSE_TYPE	FUEL_TYPE	POPULATION	OPS_ANNUAL	HORSEPOWER	LOADFACTOR		CO2 (MT)	N2O (MT)	CH4 (MT)	CO2e (MT)
Air Cond-S_2019_D	D	4	177	135	0.3350		18.197	0.000	0.001	18.209
Air Cond-L_2019_D	D	6	60	314	0.3350		21.521	0.000	0.001	21.533
Air Start-S_2019_D	D	15	1611	286	0.3350		1315.756	0.000	0.042	1316.631
Air Start-L_2019_D	D	19	81	615	0.3350		180.192	0.000	0.006	180.314
Aircraft Tractor-S_2019_D	D	74	330	113	0.5360		840.556	0.000	0.078	842.203
Aircraft Tractor-M_2019_D	D	44	106	258	0.5360		366.539	0.000	0.033	367.223
Aircraft Tractor-L_2019_D	D	28	193	371	0.5360		610.705	0.000	0.054	611.844
Aircraft Tractor-M_2019_G	G	1	106	200	0.5360		8.318	0.000	0.000	8.465
Bag Tractor_2019_D	D	53	945	90	0.3685		943.986	0.000	0.152	947.169
Bag Tractor_2019_G	G	152	945	79	0.3685		3238.631	0.451	0.111	3380.776
Bag Tractor_2019_L	L	147	945	88	0.3685		3039.164	0.000	3.721	3117.314
Belt Loader_2019_D	D	28	1919	72	0.3350		736.526	0.000	0.101	738.647
Belt Loader_2019_G	G	34	1919	93	0.3350		1574.357	0.293	0.055	1666.271
Belt Loader_2019_L	L	39	1919	69	0.3350		1167.128	0.000	1.077	1189.745
Bobtail_2019_D	D	14	8	238	0.3685		5.582	0.000	0.001	5.598
Bobtail_2019_G	G	7	8	238	0.3685		3.804	0.001	0.000	3.971
Cargo Loader-S_2019_D	D	138	408	99	0.3350		1061.199	0.000	0.109	1063.488
Cargo Loader-L_2019_D	D	7	103	338	0.3350		46.395	0.000	0.005	46.495
Cargo Loader-S_2019_G	G	2	408	102	0.3350		21.595	0.004	0.001	22.771
Cargo Loader-L_2019_G	G	4	103	200	0.3350		21.379	0.004	0.001	22.543
Cargo Loader-S_2019_L	L	1	408	102	0.3350		9.406	0.000	0.014	9.691
Cargo Tractor-S_2019_D	D	23	30	74	0.3618		10.498	0.000	0.001	10.521
Cargo Tractor-L_2019_D	D	12	5	285	0.3618		3.516	0.000	0.000	3.523
Cargo Tractor-S_2019_G	G	20	30	90	0.3618		15.132	0.003	0.001	15.968
Cargo Tractor-L_2019_G	G	8	5	210	0.3618		2.354	0.000	0.000	2.484
Cargo Tractor-S_2019_L	L	10	30	95	0.3618		6.957	0.000	0.003	7.011
Cargo Tractor-L_2019_L	L	13	5	160	0.3618		2.539	0.000	0.001	2.558
Cart_2019_D	D	1	6	46	0.3350		0.053	0.000	0.000	0.053
Cart_2019_G	G	8	6	24	0.3350		0.166	0.000	0.000	0.209
Catering Truck_S_2019_D	D	50	239	165	0.3350		375.383	0.000	0.009	375.580
Catering Truck_L_2019_D	D	63	734	250	0.3350		2200.893	0.000	0.055	2202.050
Catering Truck_S_2019_G	G	4	239	145	0.3350		33.992	0.005	0.002	35.481
Catering Truck_L_2019_G	G	11	734	370	0.3350		732.565	0.100	0.048	764.650
Deicer_2019_G	G	1	520	10	0.3350		1.349	0.000	0.000	1.398
Fork Lift-S_2019_D	D	2	4	42	0.2010		0.038	0.000	0.000	0.038
Fork Lift-M_2019_D	D	6	9	90	0.2010		0.555	0.000	0.000	0.556
Fork Lift-L_2019_D	D	16	9	170	0.2010		2.796	0.000	0.000	2.800
Fork Lift-S_2019_G	G	22	4	17	0.2010		0.236	0.000	0.000	0.254
Fork Lift-M_2019_G	G	10	9	93	0.2010		1.318	0.000	0.000	1.422
Fork Lift-L_2019_L	L	159	9	45	0.2010		8.732	0.000	0.003	8.804
Fork Lift-M_2019_L	L	26	9	90	0.2010		2.856	0.000	0.001	2.879
Fork Lift-S_2019_L	L	19	4	170	0.2010		1.752	0.000	0.001	1.766
Fuel Truck_2019_D	D	34	310	161	0.3350		323.064	0.000	0.014	323.360
Fuel Truck_2019_L	L	1	310	95	0.3350		6.656	0.000	0.004	6.738
Generator_2019_D	D	4	114	124	0.3350		10.765	0.000	0.001	10.781
Generator_2019_G	G	2	114	10	0.3350		0.592	0.000	0.000	0.620
GPU-S_2019_D	D	53	415	160	0.3350		669.987	0.000	0.041	670.851
GPU-L_2019_D	D	32	424	244	0.3350		630.272	0.000	0.039	631.085
Lavatory Cart_2019_G	G	2	385	50	0.3350		5.539	0.004	0.003	6.979
Lavatory Truck_2019_D	D	14	3112	187	0.3350		1551.071	0.000	0.109	1553.354
Lavatory Truck_2019_G	G	12	3112	156	0.3350		1470.041	0.277	0.053	1557.062
Lift-S_2019_D	D	7	1106	65	0.3350		95.805	0.000	0.008	95.968
Lift-L_2019_D	D	7	63	171	0.3350		14.357	0.000	0.001	14.381
Lift-S_2019_G	G	11	1106	110	0.3350		347.222	0.058	0.023	365.552
Lift-L_2019_G	G	2	63	285	0.3350		9.317	0.002	0.001	9.809
Lift_S_2019_L	L	8	1106	64	0.3350		127.984	0.000	0.089	129.851
Other-S_2019_D	D	18	231	69	0.3350		54.621	0.000	0.005	54.731
Other-L_2019_D	D	45	280	158	0.3350		379.009	0.000	0.037	379.778
Other-S_2019_G	G	13	231	59	0.3350		46.492	0.009	0.005	49.469
Other-L_2019_G	G	46	280	143	0.3350		483.309	0.096	0.051	514.257
Other-S_2019_L	L	14	231	140	0.3350		102.329	0.000	0.141	105.293
Pass Stand_2019_D	D	6	1256	74	0.3953		125.279	0.000	0.006	125.400
Pass Stand_2019_G	G	16	1256	198	0.3953		1184.788	0.163	0.037	1236.169
Pass Stand_2019_L	L	1	1256	120	0.3953		40.196	0.000	0.012	40.445
Service Truck_2019_D	D	34	2525	208	0.3350		3399.586	0.000	0.176	3403.274
Service Truck_2019_G	G	26	2525	197	0.3350		3171.442	0.701	0.184	3392.694
Service Truck_2019_L	L	3	2525	150	0.3350		256.805	0.000	0.155	260.058
Sweeper_2019_D	D	1	339	210	0.3350		13.553	0.000	0.000	13.563
Sweeper_2019_G	G	3	339	47	0.3350		12.402	0.003	0.001	13.262
Sweeper_2019_L	L	3	339	23	0.3350		5.287	0.000	0.003	5.340
Water Truck_2019_D	D	2	534	135	0.3350		27.449	0.000	0.003	27.505
Water Truck_2019_G	G	4	534	295	0.3350		159.004	0.034	0.006	169.706

Total	34,188
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LAX MSC North Project Draft EIR
Ground Service Equipment GHG Calculations (2019 Without Project)

GSE Data							EMISSIONS			
GSE_TYPE	FUEL_TYPE	POPULATION	OPS_ANNUAL	HORSEPOWER	LOADFACTOR		CO2 (MT)	N2O (MT)	CH4 (MT)	CO2e (MT)
Air Cond-S_2019_D	D	4	537	135	0.3350		55.207	0.000	0.002	55.243
Air Cond-L_2019_D	D	6	182	314	0.3350		65.279	0.000	0.002	65.316
Air Start-S_2019_D	D	15	1611	286	0.3350		1315.756	0.000	0.042	1316.631
Air Start-L_2019_D	D	19	81	615	0.3350		180.192	0.000	0.006	180.314
Aircraft Tractor-S_2019_D	D	74	330	113	0.5360		840.556	0.000	0.078	842.203
Aircraft Tractor-M_2019_D	D	44	106	258	0.5360		366.539	0.000	0.033	367.223
Aircraft Tractor-L_2019_D	D	28	193	371	0.5360		610.705	0.000	0.054	611.844
Aircraft Tractor-M_2019_G	G	1	106	200	0.5360		8.318	0.000	0.000	8.465
Bag Tractor_2019_D	D	53	945	90	0.3685		943.986	0.000	0.152	947.169
Bag Tractor_2019_G	G	152	945	79	0.3685		3238.631	0.451	0.111	3380.776
Bag Tractor_2019_L	L	147	945	88	0.3685		3039.164	0.000	3.721	3117.314
Belt Loader_2019_D	D	28	1919	72	0.3350		736.526	0.000	0.101	738.647
Belt Loader_2019_G	G	34	1919	93	0.3350		1574.357	0.293	0.055	1666.271
Belt Loader_2019_L	L	39	1919	69	0.3350		1167.128	0.000	1.077	1189.745
Bobtail_2019_D	D	14	8	238	0.3685		5.582	0.000	0.001	5.598
Bobtail_2019_G	G	7	8	238	0.3685		3.804	0.001	0.000	3.971
Cargo Loader-S_2019_D	D	138	408	99	0.3350		1061.199	0.000	0.109	1063.488
Cargo Loader-L_2019_D	D	7	103	338	0.3350		46.395	0.000	0.005	46.495
Cargo Loader-S_2019_G	G	2	408	102	0.3350		21.595	0.004	0.001	22.771
Cargo Loader-L_2019_G	G	4	103	200	0.3350		21.379	0.004	0.001	22.543
Cargo Loader-S_2019_L	L	1	408	102	0.3350		9.406	0.000	0.014	9.691
Cargo Tractor-S_2019_D	D	23	30	74	0.3618		10.498	0.000	0.001	10.521
Cargo Tractor-L_2019_D	D	12	5	285	0.3618		3.516	0.000	0.000	3.523
Cargo Tractor-S_2019_G	G	20	30	90	0.3618		15.132	0.003	0.001	15.968
Cargo Tractor-L_2019_G	G	8	5	210	0.3618		2.354	0.000	0.000	2.484
Cargo Tractor-S_2019_L	L	10	30	95	0.3618		6.957	0.000	0.003	7.011
Cargo Tractor-L_2019_L	L	13	5	160	0.3618		2.539	0.000	0.001	2.558
Cart_2019_D	D	1	6	46	0.3350		0.053	0.000	0.000	0.053
Cart_2019_G	G	8	6	24	0.3350		0.166	0.000	0.000	0.209
Catering Truck_S_2019_D	D	50	239	165	0.3350		375.383	0.000	0.009	375.580
Catering Truck_L_2019_D	D	63	734	250	0.3350		2200.893	0.000	0.055	2202.050
Catering Truck_S_2019_G	G	4	239	145	0.3350		33.992	0.005	0.002	35.481
Catering Truck_L_2019_G	G	11	734	370	0.3350		732.565	0.100	0.048	764.650
Deicer_2019_G	G	1	520	10	0.3350		1.349	0.000	0.000	1.398
Fork Lift-S_2019_D	D	2	4	42	0.2010		0.038	0.000	0.000	0.038
Fork Lift-M_2019_D	D	6	9	90	0.2010		0.555	0.000	0.000	0.556
Fork Lift-L_2019_D	D	16	9	170	0.2010		2.796	0.000	0.000	2.800
Fork Lift-S_2019_G	G	22	4	17	0.2010		0.236	0.000	0.000	0.254
Fork Lift-M_2019_G	G	10	9	93	0.2010		1.318	0.000	0.000	1.422
Fork Lift-L_2019_L	L	159	9	45	0.2010		8.732	0.000	0.003	8.804
Fork Lift-M_2019_L	L	26	9	90	0.2010		2.856	0.000	0.001	2.879
Fork Lift-S_2019_L	L	19	4	170	0.2010		1.752	0.000	0.001	1.766
Fuel Truck_2019_D	D	34	310	161	0.3350		323.064	0.000	0.014	323.360
Fuel Truck_2019_L	L	1	310	95	0.3350		6.656	0.000	0.004	6.738
Generator_2019_D	D	4	114	124	0.3350		10.765	0.000	0.001	10.781
Generator_2019_G	G	2	114	10	0.3350		0.592	0.000	0.000	0.620
GPU-S_2019_D	D	53	415	160	0.3350		669.987	0.000	0.041	670.851
GPU-L_2019_D	D	32	424	244	0.3350		630.272	0.000	0.039	631.085
Lavatory Cart_2019_G	G	2	385	50	0.3350		5.539	0.004	0.003	6.979
Lavatory Truck_2019_D	D	14	3112	187	0.3350		1551.071	0.000	0.109	1553.354
Lavatory Truck_2019_G	G	12	3112	156	0.3350		1470.041	0.277	0.053	1557.062
Lift-S_2019_D	D	7	1106	65	0.3350		95.805	0.000	0.008	95.968
Lift-L_2019_D	D	7	63	171	0.3350		14.357	0.000	0.001	14.381
Lift-S_2019_G	G	11	1106	110	0.3350		347.222	0.058	0.023	365.552
Lift-L_2019_G	G	2	63	285	0.3350		9.317	0.002	0.001	9.809
Lift_S_2019_L	L	8	1106	64	0.3350		127.984	0.000	0.089	129.851
Other-S_2019_D	D	18	231	69	0.3350		54.621	0.000	0.005	54.731
Other-L_2019_D	D	45	280	158	0.3350		379.009	0.000	0.037	379.778
Other-S_2019_G	G	13	231	59	0.3350		46.492	0.009	0.005	49.469
Other-L_2019_G	G	46	280	143	0.3350		483.309	0.096	0.051	514.257
Other-S_2019_L	L	14	231	140	0.3350		102.329	0.000	0.141	105.293
Pass Stand_2019_D	D	6	1256	74	0.3953		125.279	0.000	0.006	125.400
Pass Stand_2019_G	G	16	1256	198	0.3953		1184.788	0.163	0.037	1236.169
Pass Stand_2019_L	L	1	1256	120	0.3953		40.196	0.000	0.012	40.445
Service Truck_2019_D	D	34	2525	208	0.3350		3399.586	0.000	0.176	3403.274
Service Truck_2019_G	G	26	2525	197	0.3350		3171.442	0.701	0.184	3392.694
Service Truck_2019_L	L	3	2525	150	0.3350		256.805	0.000	0.155	260.058
Sweeper_2019_D	D	1	339	210	0.3350		13.553	0.000	0.000	13.563
Sweeper_2019_G	G	3	339	47	0.3350		12.402	0.003	0.001	13.262
Sweeper_2019_L	L	3	339	23	0.3350		5.287	0.000	0.003	5.340
Water Truck_2019_D	D	2	534	135	0.3350		27.449	0.000	0.003	27.505
Water Truck_2019_G	G	4	534	295	0.3350		159.004	0.034	0.006	169.706

Total	34,269
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Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- Busing Operations Emissions

LAX MSC North Project Draft EIR
Daily Busing Operations by Terminal

2012 Existing

Terminal	Arrival Buses	Departure Buses
Commuter	63	63
CR7	21	21
ERD	42	42
WEST	17	15
772	17	15
Grand Total	80	78

2019 No Project

Terminal	Arrival Buses	Departure Buses
Commuter	62	62
BE1	5	5
EM2	57	57
WEST	84	39
319	2	2
737	4	4
738	4	2
739	3	0
744	11	0
752	21	15
753	15	9
763	5	0
772	11	4
773	5	0
73H	3	3
Grand Total	146	101

2012 and 2019 With Project

Terminal	Arrival Buses	Departure Buses
Commuter	62	62
BE1	5	5
EM2	57	57
MSC	164	139
319	10	8
320	2	2
321	3	3
343	4	4
388	12	12
734	4	4
737	8	8
738	22	18
739	3	3
744	31	23
752	9	9
753	9	6
763	7	2
772	22	20
773	12	11
73H	3	3
CR7	1	1
DH4	1	1
ERJ	1	1
WEST	6	12
321	3	3
744	0	6
753	3	3
Grand Total	232	213

**LAX MSC North Project Draft EIR
Busing Operations**

2012 Existing

		<u>One Way</u>		<u>Roundtrip</u>	<u>Buses per day</u>	<u>Annual Traffic</u>			<u>Total</u>	<u>Annual VMT</u>	
		<u>Distance (ft)</u>	<u>Distance (mi)</u>	<u>Distance (mi)</u>		<u>CNG</u>	<u>Diesel</u>	<u>Daily VMT</u>		<u>CNG</u>	<u>Diesel</u>
West	North	10,191	1.930	3.9	11	-	-	42	14,453	-	-
	South	11,496	2.177	4.4	18	-	-	78	26,680	-	-
	TBIT	8,923	1.690	3.4	4	-	-	14	4,602	-	-
Commuter		5,200	0.985	2.0	126	-	-	248	84,476	-	-
Total								383	130,211		

2012 With Project

		<u>One Way</u>		<u>Roundtrip</u>	<u>Buses per day</u>	<u>Annual Traffic</u>			<u>Total</u>	<u>Annual VMT</u>	
		<u>Distance (ft)</u>	<u>Distance (mi)</u>	<u>Distance (mi)</u>		<u>CNG</u>	<u>Diesel</u>	<u>Daily VMT</u>		<u>CNG</u>	<u>Diesel</u>
MSC	North	6,388	1.210	2.4	101	30,253	38,504	244	83,185	36,602	46,584
	South	6,247	1.183	2.4	168	50,322	64,046	398	135,305	59,534	75,771
	TBIT	2,404	0.455	0.9	34	10,184	12,962	31	10,538	4,637	5,901
West	North	10,191	1.930	3.9	6	1,797	2,287	23	7,884	3,469	4,415
	South	11,496	2.177	4.4	10	2,995	3,812	44	14,822	6,522	8,300
	TBIT	8,923	1.690	3.4	2	599	762	7	2,301	1,012	1,289
Commuter		5,200	0.985	2.0	124	37,142	47,272	244	83,135	36,580	46,556
Total								991	337,170	148,355	188,815

2019 Without Project

		<u>One Way</u>		<u>Roundtrip</u>	<u>Buses per day</u>	<u>Annual Traffic</u>	<u>Daily VMT</u>	<u>Annual VMT</u>
		<u>Distance (ft)</u>	<u>Distance (mi)</u>	<u>Distance (mi)</u>				
West	North	10,191	1.9	3.9	41	27,835	158	53,725
	South	11,496	2.2	4.4	68	46,165	296	100,514
	TBIT	8,923	1.7	3.4	14	9,505	47	16,062
Commuter		5,200	1.0	2.0	124	84,184	244	82,908
Total						167,689	746	253,209

2019 With Project

		<u>One Way</u>		<u>Roundtrip</u>	<u>Buses per day</u>	<u>Annual Traffic</u>	<u>Daily VMT</u>	<u>Annual VMT</u>
		<u>Distance (ft)</u>	<u>Distance (mi)</u>	<u>Distance (mi)</u>				
MSC	North	6,388	1.2	2.4	101	68,569	244	82,958
	South	6,247	1.2	2.4	168	114,055	398	134,935
	TBIT	2,404	0.5	0.9	34	23,083	31	10,510
West	North	10,191	1.9	3.9	6	4,073	23	7,862
	South	11,496	2.2	4.4	10	6,789	44	14,782
	TBIT	8,923	1.7	3.4	2	1,358	7	2,295
Commuter		5,200	1.0	2.0	124	84,184	244	82,908
Total						302,111	991	336,249

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- EDMS Inventory Outputs
 - 2012 Existing
 - 2012 With Project
 - 2012 With Program
 - 2019 Without Project
 - 2019 With Project
 - 2025 Without Program
 - 2025 With Program

Emissions Inventory Summary
(Short Tons per Year)
2012 Existing - Los Angeles Intl 2012

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	2,854.402	475.663	3,205.644	311.017	44.694	44.694
GSE	653.734	45.996	259.370	0.313	10.653	10.282
APUs	103.023	8.644	100.592	13.688	13.971	13.971
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	0.426	0.000	2.357	0.000	0.033	0.031
Stationary Sources	0.007	0.308	0.009	0.000	0.001	0.001
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	3,611.592	530.612	3,567.972	325.018	69.351	68.977

Emissions Inventory Summary
(Short Tons per Year)
2012 With Project - Los Angeles Intl 2012

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	2,842.076	474.077	3,203.408	310.322	44.597	44.597
GSE	653.734	45.996	259.370	0.313	10.653	10.282
APUs	102.551	8.605	100.132	13.626	13.907	13.907
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	1.102	0.000	6.090	0.000	0.086	0.079
Stationary Sources	0.311	2.643	0.370	0.002	0.028	0.028
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	3,599.774	531.321	3,569.371	324.262	69.270	68.893

Emissions Inventory Summary
(Short Tons per Year)
2012 With Program - Los Angeles Intl 2012

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	2,842.076	474.077	3,203.408	310.322	44.597	44.597
GSE	653.734	45.996	259.370	0.313	10.653	10.282
APUs	102.551	8.605	100.132	13.626	13.907	13.907
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	N/A	N/A	N/A	N/A	N/A	N/A
Stationary Sources	0.633	6.774	0.780	0.005	0.058	0.058
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	3,598.995	535.451	3,563.690	324.265	69.215	68.845

Emissions Inventory Summary
(Short Tons per Year)
2019 No Project - Los Angeles Intl 2019

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	3,202.612	525.795	3,582.154	344.924	48.756	48.756
GSE	808.577	42.302	187.707	1.105	8.445	8.119
APUs	110.799	9.384	105.813	14.496	15.253	15.253
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	0.287	0.000	3.591	0.000	0.005	0.005
Stationary Sources	0.007	0.308	0.009	0.000	0.001	0.001
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	4,122.282	577.790	3,879.275	360.526	72.459	72.133

Emissions Inventory Summary
(Short Tons per Year)
2019 With Project - Los Angeles Intl 2019

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	3,190.280	524.214	3,579.947	344.242	48.662	48.662
GSE	808.275	42.272	187.536	1.104	8.439	8.113
APUs	110.348	9.346	105.383	14.438	15.191	15.191
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	0.381	0.000	4.765	0.000	0.006	0.006
Stationary Sources	0.311	2.643	0.370	0.002	0.028	0.028
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	4,109.594	578.475	3,878.001	359.786	72.325	72.000

Emissions Inventory Summary
(Short Tons per Year)
2025 No Program - Los Angeles Intl 2025

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	3,767.332	611.027	4,785.031	447.742	62.432	62.432
GSE	N/A	N/A	N/A	N/A	N/A	N/A
APUs	139.372	12.678	143.932	19.375	21.170	21.170
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	0.000	0.000	0.000	0.000	0.000	0.000
Stationary Sources	0.311	2.643	0.370	0.002	0.028	0.028
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	3,907.015	626.348	4,929.334	467.119	83.630	83.630

Emissions Inventory Summary

(Short Tons per Year)

2025 Program - Los Angeles Intl 2025

Category	CO	VOC	NOx	SOx	PM-10	PM-2.5
Aircraft	3,752.713	609.209	4,782.304	446.889	62.323	62.323
GSE	N/A	N/A	N/A	N/A	N/A	N/A
APUs	138.802	12.626	143.346	19.296	21.084	21.084
Parking Facilities	N/A	N/A	N/A	N/A	N/A	N/A
Roadways	N/A	N/A	N/A	N/A	N/A	N/A
Stationary Sources	0.633	6.774	0.780	0.005	0.058	0.058
Training Fires	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total	3,892.149	628.608	4,926.429	466.190	83.465	83.465

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- On-Airport Traffic Emissions

LAX MSC North Project Draft EIR
Traffic Emissions: 2012 Baseline

						2012 Emission Factors (g/mile)						
Vehicle	Annual Traffic		EMFAC2011 Vehicle Description	Fuel	Season	Criteria Pollutants						GHGs
	Volume	Distance				ROG	TOG	CO	NOx	PM10	PM2.5	CO2 (Pavley)
Charter Bus	2,022,753	1.50	Motor Coach	DSL	Max	0.67131	0.76424	2.82814	12.91668	0.35751	0.32891	1994.68904
FlyAway	604,656	1.50	Urban Buses	DSL	Max	0.71983	0.81948	3.12790	15.99446	0.30510	0.28069	2589.03280
Hotel Shuttles	1,103,206	1.50	Urban Buses	DSL	Max	0.71983	0.81948	3.12790	15.99446	0.30510	0.28069	2589.03280
LAX Shuttles	675,309	1.50	Urban Buses	DSL	Max	0.71983	0.81948	3.12790	15.99446	0.30510	0.28069	2589.03280
Limousines	732,789	1.50	Light-Duty Trucks (3751-5750 lbs)	GAS	Max	0.09028	0.12578	3.03987	0.31621	0.00348	0.00318	576.65050
POV	12,806,193	1.50	Passenger Cars	GAS	Max	0.07600	0.10234	2.22610	0.16561	0.00338	0.00307	415.98793
Private Parking Shuttles	1,464,188	1.50	Urban Buses	DSL	Max	0.71983	0.81948	3.12790	15.99446	0.30510	0.28069	2589.03280
Rental Car Shuttles	3,437,278	1.50	Urban Buses	DSL	Max	0.71983	0.81948	3.12790	15.99446	0.30510	0.28069	2589.03280
Shared Ride Vans	1,287,467	1.50	Light-Duty Trucks (3751-5750 lbs)	GAS	Max	0.09028	0.12578	3.03987	0.31621	0.00348	0.00318	576.65050
Taxi	2,145,820	1.50	Passenger Cars	GAS	Max	0.07600	0.10234	2.22610	0.16561	0.00338	0.00307	415.98793
Transit Bus	214,540	1.50	Urban Buses	DSL	Max	0.71983	0.81948	3.12790	15.99446	0.30510	0.28069	2589.03280
26,494,199												

2012 Emissions (peak lbs/day)					
ROG	TOG	CO	NOx	PM10	PM2.5
13.48086	15.34694	56.79267	259.38367	7.17924	6.60490
4.32106	4.91924	18.77628	96.01228	1.83145	1.68493
7.88384	8.97523	34.25767	175.17613	3.34151	3.07419
4.82597	5.49404	20.97027	107.23119	2.04545	1.88182
0.65680	0.91502	22.11477	2.30043	0.02534	0.02314
9.66245	13.01156	283.01735	21.05541	0.42968	0.39053
10.46353	11.91203	45.46718	232.49581	4.43490	4.08010
24.56384	27.96430	106.73724	545.79948	10.41121	9.57832
1.15396	1.60764	38.85434	4.04172	0.04452	0.04066
1.61905	2.18023	47.42271	3.52807	0.07200	0.06544
1.53317	1.74541	6.66207	34.06643	0.64982	0.59784

2012 Emissions						
(TPY)						MT
ROG	TOG	CO	NOx	PM10	PM2.5	CO2 (Pavley)
2.24525	2.55604	9.45885	43.20050	1.19571	1.10005	6052.145747
0.71967	0.81930	3.12720	15.99090	0.30503	0.28063	2348.211227
1.31306	1.49483	5.70563	29.17569	0.55653	0.51201	4284.353509
0.80377	0.91504	3.49261	17.85942	0.34067	0.31342	2622.596525
0.10939	0.15240	3.68323	0.38314	0.00422	0.00385	633.8449331
1.60929	2.16708	47.13670	3.50679	0.07156	0.06504	7990.83241
1.74271	1.98396	7.57258	38.72231	0.73863	0.67954	5686.244216
4.09112	4.65747	17.77715	90.90322	1.73399	1.59527	13348.83866
0.19219	0.26775	6.47121	0.67315	0.00742	0.00677	1113.628076
0.26965	0.36312	7.89828	0.58760	0.01199	0.01090	1338.953049
0.25535	0.29070	1.10957	5.67378	0.10823	0.09957	833.1763551

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHG – EDMS Inventory Outputs
 - 2012 Existing
 - 2012 With Project
 - 2012 With Program
 - 2019 Without Project
 - 2019 With Project
 - 2025 Without Program
 - 2025 With Program

Emissions Inventory Summary
(Metric Tons per Year)
2012 Existing - Los Angeles Intl 2012

Category	CO2	Fuel Consumption
Aircraft	688,995.732	218,382.165
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	688,995.732	218,382.165

Emissions Inventory Summary
(Metric Tons per Year)
2012 With Project - Los Angeles Intl 2012

Category	CO2	Fuel Consumption
Aircraft	687,455.805	217,894.074
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	687,455.805	217,894.074

Emissions Inventory Summary
(Metric Tons per Year)
2012 With Program - Los Angeles Intl 2012

Category	CO2	Fuel Consumption
Aircraft	687,455.805	217,894.074
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	687,455.805	217,894.074

Emissions Inventory Summary
(Metric Tons per Year)
2019 No Project - Los Angeles Intl 2019

Category	CO2	Fuel Consumption
Aircraft	764,111.257	242,190.573
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	764,111.257	242,190.573

Emissions Inventory Summary

(Metric Tons per Year)

2019 With Project - Los Angeles Intl 2019

Category	CO2	Fuel Consumption
Aircraft	762,599.807	241,711.508
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	762,599.807	241,711.508

Emissions Inventory Summary

(Metric Tons per Year)

2025 No Program - Los Angeles Intl 2025

Category	CO2	Fuel Consumption
Aircraft	991,882.499	314,384.310
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	991,882.499	314,384.310

Emissions Inventory Summary
(Metric Tons per Year)
2025 Program - Los Angeles Intl 2025

Category	CO2	Fuel Consumption
Aircraft	989,994.154	313,785.786
GSE	N/A	N/A
APUs	N/A	N/A
Parking Facilities	N/A	N/A
Roadways	N/A	N/A
Stationary Sources	N/A	N/A
Training Fires	N/A	N/A
Grand Total	989,994.154	313,785.786

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- GHGs – Aircraft Emissions

LAX MSC North Project Draft EIR
Aircraft GHG Calculations

Source	Emission/Conversion Factors		Global Warming Potentials ³	
Airport Cooperative Research Program ¹	CO2	21.095 lbs/gal	CO2	1
US Energy Information Administration ²	CH4	0.27 g/gal	CH4	21
US Energy Information Administration ²	N2O	0.31 g/gal	N2O	310
Airport Cooperative Research Program ¹	Jet fuel	6.84 lbs/gal		
Airport Cooperative Research Program ¹	Conversion	0.0004536 metric tons/lb		
	Conversion	1000000 g/metric ton		

Source	Units	2012 Existing	2012 With Project		2019 With Project		2019 No Project	
		Inventory	Inventory	Difference	Inventory	Difference	Inventory	Difference
EDMS Output	Fuel Use (lbs)	481,450,262	480,374,206	-	532,882,658	-	533,938,815	-
Calculated conversion	Fuel Use (gallons)	70,387,465	70,230,147.02	-	77,906,821	-	78,061,230	-
EDMS Output	CO2 (metric tons)	688,996	687,456	(1,539.93)	762,600	73,604.08	764,111	75,115.53
Calculated based on fuel use	CH4 (metric tons)	19.00	18.96	(0.04)	21.03	2.03	21.08	2.07
Calculated based on fuel use	N2O (metric tons)	21.82	21.77	(0.05)	24.15	2.33	24.20	2.38
Total		696,159.06	694,603.13	(1,555.94)	770,528.38	74,369.32	772,055.55	75,896.48

NOTES:

¹ Airport Cooperative Research Program, Transportation Research Board, "Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories," 2009.

² US Energy Information Administration, "Voluntary Reporting of Greenhouse Gases Program Fuel Emission Coefficients," January 31, 2011, available: <http://www.eia.gov/oiaf/1605/coefficients.html#tbl7>.

³ California and International convention is to use the GWPs from the IPCC Second Assessment Report to maintain the global GHG "currency."

LAX MSC North Project Draft EIR
Aircraft GHG Calculations

Source	Emission/Conversion Factors		Global Warming Potentials ³	
Airport Cooperative Research Program ¹	CO2	21.095 lbs/gal	CO2	1
US Energy Information Administration ²	CH4	0.27 g/gal	CH4	21
US Energy Information Administration ²	N2O	0.31 g/gal	N2O	310
Airport Cooperative Research Program ¹	Jet fuel	6.84 lbs/gal		
Airport Cooperative Research Program ¹	Conversion	0.0004536 metric tons/lb		
	Conversion	1000000 g/metric ton		

Source	Units	2012 Existing	2012 With Program		2025 With Program		2025 No Program	
		Inventory	Inventory	Difference	Inventory	Difference	Inventory	Difference
EDMS Output	Fuel Use (lbs)	481,450,262	480,374,206	-	691,779,242	-	693,098,762	-
Calculated conversion	Fuel Use (gallons)	70,387,465	70,230,147.02	-	101,137,316	-	101,330,228	-
EDMS Output	CO2 (metric tons)	688,996	687,456	(1,539.93)	989,994	300,998.27	991,882	302,886.77
Calculated based on fuel use	CH4 (metric tons)	19.00	18.96	(0.04)	27.31	8.30	27.36	8.35
Calculated based on fuel use	N2O (metric tons)	21.82	21.77	(0.05)	31.35	9.53	31.41	9.59
Total		696,159.06	694,603.13	(1,555.94)	1,000,286.74	304,127.68	1,002,194.88	306,035.81

NOTES:

¹ Airport Cooperative Research Program, Transportation Research Board, "Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories," 2009.

² US Energy Information Administration, "Voluntary Reporting of Greenhouse Gases Program Fuel Emission Coefficients," January 31, 2011, available: <http://www.eia.gov/oiaf/1605/coefficients.html#tbl7>.

³ California and International convention is to use the GWPs from the IPCC Second Assessment Report to maintain the global GHG "currency."

Attachment B.4

Operations – Criteria Pollutant and Greenhouse Gas Emissions Calculations

- CalEEMod Annual Reports
 - 2012 Existing
 - 2012 With Project
 - 2012 With Program
 - 2019 Without Project
 - 2019 With Project
 - 2025 Without Program
 - 2025 With Program

LAX Midfield Satellite Concourse - 2012 9I]gh]b[
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	14.00	1000sqft	0.32	14,000.00	0
Unrefrigerated Warehouse-No Rail	25.00	1000sqft	0.57	25,000.00	0
Parking Lot	33.30	1000sqft	0.76	33,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2012
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - Not Applicable for existing conditions.

Off-road Equipment - Not Applicable for existing conditions.

Trips and VMT - Not Applicable for existing conditions.

On-Road Fugitive Dust - Not Applicable for existing conditions.

Vehicle Trips - See Appendix B text.

Table Name	Column Name	Default Value	New Value
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2.0 Emissions Summary

[illegible]

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3077	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	1.0000e-005	0.0000	1.9200e-003
Energy	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	199.7069	199.7069	4.6700e-003	1.1000e-003	200.1467
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.4132	0.0000	7.4132	0.4381	0.0000	16.6135
Water						0.0000	0.0000		0.0000	0.0000	2.6235	69.4091	72.0326	0.2711	6.7000e-003	79.8033
Total	0.3087	8.6300e-003	8.2300e-003	5.0000e-005	0.0000	6.5000e-004	6.5000e-004	0.0000	6.5000e-004	6.5000e-004	10.0368	269.1178	279.1545	0.7139	7.8000e-003	296.5654

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Energy	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	199.7069	199.7069	4.6700e-003	1.1000e-003	200.1467
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.4132	0.0000	7.4132	0.4381	0.0000	16.6135
Water						0.0000	0.0000		0.0000	0.0000	2.6235	69.4091	72.0326	0.2711	6.6900e-003	79.7991
Total	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005	0.0000	6.5000e-004	6.5000e-004	0.0000	6.5000e-004	6.5000e-004	10.0368	269.1160	279.1527	0.7138	7.7900e-003	296.5593

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	99.69	0.12	12.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.13	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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.517091	0.060698	0.179965	0.142674	0.041505	0.006686	0.014254	0.025700	0.001934	0.002547	0.004257	0.000608	0.002082

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4368
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3271	190.3271	4.5000e-003	9.3000e-004	190.7098
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3271	190.3271	4.5000e-003	9.3000e-004	190.7098
NaturalGas Mitigated	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4368

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	22750	1.2000e-004	1.1200e-003	9.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.2140	1.2140	2.0000e-005	2.0000e-005	1.2214
General Office Building	153020	8.3000e-004	7.5000e-003	6.3000e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.1657	8.1657	1.6000e-004	1.5000e-004	8.2154
Total		9.5000e-004	8.6200e-003	7.2400e-003	6.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4369

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	22750	1.2000e-004	1.1200e-003	9.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.2140	1.2140	2.0000e-005	2.0000e-005	1.2214
General Office Building	153020	8.3000e-004	7.5000e-003	6.3000e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.1657	8.1657	1.6000e-004	1.5000e-004	8.2154
Total		9.5000e-004	8.6200e-003	7.2400e-003	6.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4369

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	203420	113.2971	2.6800e-003	5.5000e-004	113.5249
Parking Lot	29304	16.3212	3.9000e-004	8.0000e-005	16.3540
Unrefrigerated Warehouse-No Rail	109000	60.7088	1.4300e-003	3.0000e-004	60.8309
Total		190.3271	4.5000e-003	9.3000e-004	190.7098

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	203420	113.2971	2.6800e-003	5.5000e-004	113.5249
Parking Lot	29304	16.3212	3.9000e-004	8.0000e-005	16.3540
Unrefrigerated Warehouse-No Rail	109000	60.7088	1.4300e-003	3.0000e-004	60.8309
Total		190.3271	4.5000e-003	9.3000e-004	190.7098

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.3077	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	1.0000e-005	0.0000	1.9200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	1.0000e-005	0.0000	1.9200e-003
Total	0.3077	1.0000e-005	9.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	1.0000e-005	0.0000	1.9200e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	72.0326	0.2711	6.7000e-003	79.8033
Mitigated	72.0326	0.2711	6.6900e-003	79.7991

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	2.48827 / 1.52507	28.2718	0.0817	2.0500e-003	30.6232
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	5.78125 / 0	43.7609	0.1894	4.6500e-003	49.1801
Total		72.0326	0.2711	6.7000e-003	79.8033

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	2.48827 / 1.52507	28.2718	0.0817	2.0500e-003	30.6219
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	5.78125 / 0	43.7609	0.1893	4.6500e-003	49.1772
Total		72.0326	0.2711	6.7000e-003	79.7991

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.4132	0.4381	0.0000	16.6135
Unmitigated	7.4132	0.4381	0.0000	16.6135

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	13.02	2.6429	0.1562	0.0000	5.9230
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	23.5	4.7703	0.2819	0.0000	10.6905
Total		7.4132	0.4381	0.0000	16.6135

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	13.02	2.6429	0.1562	0.0000	5.9230
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	23.5	4.7703	0.2819	0.0000	10.6905
Total		7.4132	0.4381	0.0000	16.6135

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse - 201&With Project
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	684.51	1000sqft	15.71	684,509.99	0
Strip Mall	36.78	1000sqft	0.84	36,775.04	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	201G
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Grading - See Appendix B text.

Demolition - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Road Dust - See Appendix B text.

Consumer Products - See Appendix B text.

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy	0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	6,252.8046	6,252.8046	0.1459	0.0360	6,267.0181
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	137.0595	0.0000	137.0595	8.1000	0.0000	307.1592
Water						0.0000	0.0000		0.0000	0.0000	39.4614	1,373.7915	1,413.2528	4.0855	0.1024	1,530.7969
Total	2.6479	0.3699	0.3199	2.2200e-003	0.0000	0.0281	0.0281	0.0000	0.0281	0.0281	176.5209	7,626.6140	7,803.1349	12.3314	0.1384	8,104.9932

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy	0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	5,858.2530	5,858.2530	0.1368	0.0333	5,871.4363
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	41.1179	0.0000	41.1179	2.4300	0.0000	92.1478
Water						0.0000	0.0000		0.0000	0.0000	27.6230	1,081.2577	1,108.8807	2.8627	0.0723	1,191.4020
Total	2.6421	0.3165	0.2751	1.9000e-003	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241	68.7408	6,939.5286	7,008.2694	5.4296	0.1055	7,155.0050

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.22	14.43	14.01	14.41	0.00	14.43	14.43	0.00	14.43	14.43	61.06	9.01	10.19	55.97	23.74	11.72

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510142	0.059804	0.180842	0.139058	0.042603	0.006701	0.016107	0.033206	0.001939	0.002487	0.004384	0.000580	0.002146

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	344.4808	344.4808	6.6000e-003	6.3200e-003	346.5773
NaturalGas Unmitigated	0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	402.5879	402.5879	7.7200e-003	7.3800e-003	405.0380
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,513.7721	5,513.7721	0.1302	0.0269	5,524.8590
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,850.2168	5,850.2168	0.1382	0.0286	5,861.9802

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	7.48169e+006	0.0403	0.3668	0.3081	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.2517	399.2517	7.6500e-003	7.3200e-003	401.6815
Strip Mall	62517.6	3.4000e-004	3.0600e-003	2.5700e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3362	3.3362	6.0000e-005	6.0000e-005	3.3565
Total		0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	402.5879	402.5879	7.7100e-003	7.3800e-003	405.0380

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	6.39948e+006	0.0345	0.3137	0.2635	1.8800e-003		0.0238	0.0238		0.0238	0.0238	0.0000	341.5008	341.5008	6.5500e-003	6.2600e-003	343.5792
Strip Mall	55842.9	3.0000e-004	2.7400e-003	2.3000e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9800	2.9800	6.0000e-005	5.0000e-005	2.9981
Total		0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	344.4808	344.4808	6.6100e-003	6.3100e-003	346.5773

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9.94593e+006	5,539.5005	0.1308	0.0271	5,550.6392
Strip Mall	557877	310.7162	7.3400e-003	1.5200e-003	311.3410
Total		5,850.2168	0.1382	0.0286	5,861.9802

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9.36889e+006	5,218.1104	0.1232	0.0255	5,228.6028
Strip Mall	530848	295.6618	6.9800e-003	1.4400e-003	296.2563
Total		5,513.7721	0.1302	0.0269	5,524.8590

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Unmitigated	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	1,413.2528	4.0855	0.1024	1,530.7969
Mitigated	1,108.8807	2.8627	0.0723	1,191.4020

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	121.661 / 74.5661	1,382.3068	3.9961	0.1002	1,497.2770
Strip Mall	2.72365 / 1.66933	30.9461	0.0895	2.2400e-003	33.5199
Total		1,413.2528	4.0855	0.1024	1,530.7970

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	85.1624 / 74.5661	1,084.599 4	2.8000	0.0707	1,165.313 8
Strip Mall	1.90655 / 1.66933	24.2812	0.0627	1.5800e- 003	26.0882
Total		1,108.880 7	2.8627	0.0723	1,191.402 0

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.1179	2.4300	0.0000	92.1478
Unmitigated	137.0595	8.1000	0.0000	307.1592

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	636.59	129.2220	7.6368	0.0000	289.5949
Strip Mall	38.61	7.8375	0.4632	0.0000	17.5643
Total		137.0595	8.1000	0.0000	307.1592

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	190.977	38.7666	2.2910	0.0000	86.8785
Strip Mall	11.583	2.3512	0.1390	0.0000	5.2693
Total		41.1179	2.4300	0.0000	92.1478

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse - 20%& With Program: MSC
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,245.04	1000sqft	28.58	1,245,042.37	0
Strip Mall	66.89	1000sqft	1.54	66,889.43	0
General Light Industry	24.00	1000sqft	0.55	24,000.00	0
General Office Building	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	20FG
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Grading - See Appendix B text.

Demolition - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Road Dust - See Appendix B text.

Consumer Products - See Appendix B text.

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	0

tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstructionPhase	NumDays	30.00	0.00
tblLandUse	LandUseSquareFeet	1,245,040.00	1,245,042.37
tblLandUse	LandUseSquareFeet	66,890.00	66,889.43
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.00
tblOnRoadDust	MaterialSiltContent	8.50	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	0.00
tblOnRoadDust	RoadSiltLoading	0.10	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30

tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.4056	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Energy	0.0768	0.6980	0.5863	4.1900e-003		0.0531	0.0531		0.0531	0.0531	0.0000	11,610.3283	11,610.3283	0.2708	0.0670	11,636.7704
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	256.4710	0.0000	256.4710	15.1570	0.0000	574.7680
Water						0.0000	0.0000		0.0000	0.0000	73.8747	2,550.7946	2,624.6693	7.6479	0.1916	2,844.6786
Total	6.4824	0.6981	0.6034	4.1900e-003	0.0000	0.0531	0.0531	0.0000	0.0531	0.0531	330.3457	14,161.1562	14,491.5019	23.0758	0.2586	15,056.2521

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4726	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Energy	0.0658	0.5979	0.5022	3.5900e-003		0.0454	0.0454		0.0454	0.0454	0.0000	10,881.0897	10,881.0897	0.2541	0.0619	10,905.6215
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	76.9413	0.0000	76.9413	4.5471	0.0000	172.4304
Water						0.0000	0.0000		0.0000	0.0000	51.7123	2,003.1489	2,054.8612	5.3587	0.1352	2,209.3052
Total	5.5384	0.5981	0.5193	3.5900e-003	0.0000	0.0455	0.0455	0.0000	0.0455	0.0455	128.6536	12,884.2719	13,012.9255	10.1599	0.1971	13,287.3922

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	14.56	14.34	13.93	14.32	0.00	14.33	14.33	0.00	14.33	14.33	61.05	9.02	10.20	55.97	23.77	11.75

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	162	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.499131	0.060194	0.182964	0.141782	0.044131	0.007011	0.016488	0.036565	0.002001	0.002519	0.004202	0.000556	0.002456

5.0 Energy Detail

2.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0658	0.5979	0.5022	3.5900e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.8950	650.8950	0.0125	0.0119	654.8562
NaturalGas Unmitigated	0.0768	0.6980	0.5863	4.1900e-003		0.0531	0.0531		0.0531	0.0531	0.0000	759.8497	759.8497	0.0146	0.0139	764.4740
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10,230.1948	10,230.1948	0.2416	0.0500	10,250.7653
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10,850.4786	10,850.4786	0.2563	0.0530	10,872.2964

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	451440	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	24.0906	24.0906	4.6000e-004	4.4000e-004	24.2372
General Office Building	1.36083e+007	0.0734	0.6671	0.5603	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.1914	726.1914	0.0139	0.0133	730.6109
General Office Building	65580	3.5000e-004	3.2100e-003	2.7000e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4996	3.4996	7.0000e-005	6.0000e-005	3.5209
Strip Mall	113712	6.1000e-004	5.5700e-003	4.6800e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0681	6.0681	1.2000e-004	1.1000e-004	6.1050
Total		0.0768	0.6980	0.5863	4.1800e-003		0.0530	0.0530		0.0530	0.0530	0.0000	759.8497	759.8497	0.0146	0.0139	764.4740

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	399744	2.1600e-003	0.0196	0.0165	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.3319	21.3319	4.1000e-004	3.9000e-004	21.4617
General Office Building	1.16399e+007	0.0628	0.5706	0.4793	3.4200e-003		0.0434	0.0434		0.0434	0.0434	0.0000	621.1495	621.1495	0.0119	0.0114	624.9297
General Office Building	56094	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9934	2.9934	6.0000e-005	5.0000e-005	3.0116
Strip Mall	101572	5.5000e-004	4.9800e-003	4.1800e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	5.4203	5.4203	1.0000e-004	1.0000e-004	5.4532
Total		0.0658	0.5979	0.5022	3.5900e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.8950	650.8950	0.0125	0.0119	654.8562

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	289200	161.0733	3.8000e-003	7.9000e-004	161.3972
General Office Building	1.80905e+007	10,075.6935	0.2380	0.0492	10,095.9534
General Office Building	87180	48.5559	1.1500e-003	2.4000e-004	48.6535
Strip Mall	1.01471e+006	565.1559	0.0134	2.7600e-003	566.2923
Total		10,850.4786	0.2563	0.0530	10,872.2964

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	279300	155.5594	3.6700e-003	7.6000e-004	155.8722
General Office Building	1.70409e+007	9,491.1230	0.2242	0.0464	9,510.2074
General Office Building	82122	45.7388	1.0800e-003	2.2000e-004	45.8308
Strip Mall	965549	537.7736	0.0127	2.6300e-003	538.8550
Total		10,230.1948	0.2416	0.0500	10,250.7653

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.4726	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Unmitigated	6.4056	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8491					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5700e-003	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Total	6.4056	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8491					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5700e-003	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Total	5.4726	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	2,624.669 3	7.6479	0.1916	2,844.678 6
Mitigated	2,054.861 2	5.3587	0.1352	2,209.305 2

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.55 / 0	42.0105	0.1818	4.4700e- 003	47.2129
General Office Building	222.352 / 136.28	2,526.363 5	7.3033	0.1831	2,736.488 0
Strip Mall	4.95471 / 3.03676	56.2954	0.1627	4.0800e- 003	60.9777
Total		2,624.669 3	7.6479	0.1916	2,844.678 6

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.885 / 0	28.4294	0.1272	3.1200e- 003	32.0692
General Office Building	155.646 / 136.28	1,982.260 7	5.1174	0.1292	2,129.777 8
Strip Mall	3.4683 / 3.03676	44.1711	0.1140	2.8800e- 003	47.4582
Total		2,054.861 2	5.3587	0.1352	2,209.305 2

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	76.9413	4.5471	0.0000	172.4304
Unmitigated	256.4710	15.1570	0.0000	574.7680

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	29.76	6.0410	0.3570	0.0000	13.5383
General Office Building	1163.47	236.1739	13.9575	0.0000	529.2809
Strip Mall	70.23	14.2561	0.8425	0.0000	31.9487
Total		256.4710	15.1570	0.0000	574.7680

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	8.928	1.8123	0.1071	0.0000	4.0615
General Office Building	349.041	70.8522	4.1872	0.0000	158.7843
Strip Mall	21.069	4.2768	0.2528	0.0000	9.5846
Total		76.9413	4.5471	0.0000	172.4304

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse: CTP
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	284.71	1000sqft	6.54	284,713.35	0
Strip Mall	15.29	1000sqft	0.35	15,286.65	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	20FG
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Appendix B text.

Land Use - See Appendix B text.

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Energy Use -

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	284,710.00	284,713.35
tblLandUse	LandUseSquareFeet	15,290.00	15,286.65
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.00

tblOnRoadDust	MaterialSiltContent	8.50	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	0.00
tblOnRoadDust	RoadSiltLoading	0.10	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	ST_TR	2.37	0.00

tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

[illegible]

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4320	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Energy	0.0169	0.1538	0.1292	9.2000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	2,600.6949	2,600.6949	0.0607	0.0150	2,606.6066
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	57.0060	0.0000	57.0060	3.3690	0.0000	127.7540
Water						0.0000	0.0000		0.0000	0.0000	16.4132	571.4015	587.8146	1.6993	0.0426	636.7048
Total	1.4490	0.1539	0.1330	9.2000e-004	0.0000	0.0117	0.0117	0.0000	0.0117	0.0117	73.4191	3,172.1038	3,245.5229	5.1290	0.0576	3,371.0733

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2235	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Energy	0.0145	0.1316	0.1106	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	2,436.5900	2,436.5900	0.0569	0.0138	2,442.0733
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	17.1018	0.0000	17.1018	1.0107	0.0000	38.3262
Water						0.0000	0.0000		0.0000	0.0000	11.4892	449.7278	461.2170	1.1907	0.0301	495.5402
Total	1.2379	0.1317	0.1144	7.9000e-004	0.0000	0.0100	0.0100	0.0000	0.0100	0.0100	28.5910	2,886.3253	2,914.9163	2.2583	0.0439	2,975.9475

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	14.56	14.43	14.02	14.13	0.00	14.44	14.44	0.00	14.44	14.44	61.06	9.01	10.19	55.97	23.75	11.72

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.499131	0.060194	0.182964	0.141782	0.044131	0.007011	0.016488	0.036565	0.002001	0.002519	0.004202	0.000556	0.002456

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0145	0.1316	0.1106	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.2817	143.2817	2.7500e-003	2.6300e-003	144.1537
NaturalGas Unmitigated	0.0169	0.1538	0.1292	9.2000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	167.4505	167.4505	3.2100e-003	3.0700e-003	168.4696
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,293.3083	2,293.3083	0.0542	0.0112	2,297.9196
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,433.2443	2,433.2443	0.0575	0.0119	2,438.1370

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	3.11192e+006	0.0168	0.1525	0.1281	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0637	166.0637	3.1800e-003	3.0400e-003	167.0744
Strip Mall	25987.3	1.4000e-004	1.2700e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3868	1.3868	3.0000e-005	3.0000e-005	1.3952
Total		0.0169	0.1538	0.1292	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	167.4505	167.4505	3.2100e-003	3.0700e-003	168.4696

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	2.66179e+006	0.0144	0.1305	0.1096	7.8000e-004		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	142.0430	142.0430	2.7200e-003	2.6000e-003	142.9074
Strip Mall	23212.8	1.3000e-004	1.1400e-003	9.6000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2387	1.2387	2.0000e-005	2.0000e-005	1.2463
Total		0.0145	0.1316	0.1106	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.2817	143.2817	2.7400e-003	2.6200e-003	144.1537

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	4.13688e+006	2,304.0858	0.0544	0.0113	2,308.7188
Strip Mall	231898	129.1585	3.0500e-003	6.3000e-004	129.4182
Total		2,433.2443	0.0575	0.0119	2,438.1370

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	3.89687e+006	2,170.4076	0.0513	0.0106	2,174.7718
Strip Mall	220663	122.9007	2.9000e-003	6.0000e-004	123.1478
Total		2,293.3083	0.0542	0.0112	2,297.9196

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2235	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Unmitigated	1.4320	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Total	1.4320	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1391					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Total	1.2235	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	587.8146	1.6993	0.0426	636.7048
Mitigated	461.2170	1.1907	0.0301	495.5402

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	50.6026 / 31.0145	574.9464	1.6621	0.0417	622.7663
Strip Mall	1.13257 / 0.694155	12.8683	0.0372	9.3000e-004	13.9385
Total		587.8147	1.6993	0.0426	636.7048

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	35.4218 / 31.0145	451.1202	1.1646	0.0294	484.6920
Strip Mall	0.792798 / 0.694155	10.0968	0.0261	6.6000e-004	10.8482
Total		461.2170	1.1907	0.0301	495.5402

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.1018	1.0107	0.0000	38.3262
Unmitigated	57.0060	3.3690	0.0000	127.7540

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	264.78	53.7480	3.1764	0.0000	120.4526
Strip Mall	16.05	3.2580	0.1925	0.0000	7.3014
Total		57.0060	3.3690	0.0000	127.7540

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	79.434	16.1244	0.9529	0.0000	36.1358
Strip Mall	4.815	0.9774	0.0578	0.0000	2.1904
Total		17.1018	1.0107	0.0000	38.3262

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse - 2019 Without Project
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	14.00	1000sqft	0.32	14,000.00	0
Unrefrigerated Warehouse-No Rail	25.00	1000sqft	0.57	25,000.00	0
Parking Lot	33.30	1000sqft	0.76	33,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - Not Applicable for without project conditions.

Off-road Equipment - Not Applicable for without project conditions.

Trips and VMT - Not Applicable for without project conditions.

On-Road Fugitive Dust - Not Applicable for without project conditions.

Vehicle Trips - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.00
tblOnRoadDust	MaterialSiltContent	8.50	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	0.00
tblOnRoadDust	RoadSiltLoading	0.10	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	2.59	0.00

2.0 Emissions Summary

[illegible]

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3077	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003
Energy	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	199.7069	199.7069	4.6700e-003	1.1000e-003	200.1467
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.4132	0.0000	7.4132	0.4381	0.0000	16.6135
Water						0.0000	0.0000		0.0000	0.0000	2.6235	69.4091	72.0326	0.2711	6.7000e-003	79.8033
Total	0.3086	8.6300e-003	8.1700e-003	5.0000e-005	0.0000	6.5000e-004	6.5000e-004	0.0000	6.5000e-004	6.5000e-004	10.0368	269.1178	279.1545	0.7139	7.8000e-003	296.5654

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3077	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003
Energy	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	199.7069	199.7069	4.6700e-003	1.1000e-003	200.1467
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	7.4132	0.0000	7.4132	0.4381	0.0000	16.6135
Water						0.0000	0.0000		0.0000	0.0000	2.6235	69.4091	72.0326	0.2711	6.6900e-003	79.7991
Total	0.3086	8.6300e-003	8.1700e-003	5.0000e-005	0.0000	6.5000e-004	6.5000e-004	0.0000	6.5000e-004	6.5000e-004	10.0368	269.1178	279.1545	0.7138	7.7900e-003	296.5612

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.13	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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510142	0.059804	0.180842	0.139058	0.042603	0.006701	0.016107	0.033206	0.001939	0.002487	0.004384	0.000580	0.002146

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4368
NaturalGas Unmitigated	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4368
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3271	190.3271	4.5000e-003	9.3000e-004	190.7098
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	190.3271	190.3271	4.5000e-003	9.3000e-004	190.7098

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	153020	8.3000e-004	7.5000e-003	6.3000e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.1657	8.1657	1.6000e-004	1.5000e-004	8.2154
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	22750	1.2000e-004	1.1200e-003	9.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.2140	1.2140	2.0000e-005	2.0000e-005	1.2214
Total		9.5000e-004	8.6200e-003	7.2400e-003	6.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4369

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	153020	8.3000e-004	7.5000e-003	6.3000e-003	5.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	8.1657	8.1657	1.6000e-004	1.5000e-004	8.2154
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	22750	1.2000e-004	1.1200e-003	9.4000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.2140	1.2140	2.0000e-005	2.0000e-005	1.2214
Total		9.5000e-004	8.6200e-003	7.2400e-003	6.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3798	9.3798	1.8000e-004	1.7000e-004	9.4369

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	203420	113.2971	2.6800e-003	5.5000e-004	113.5249
Parking Lot	29304	16.3212	3.9000e-004	8.0000e-005	16.3540
Unrefrigerated Warehouse-No Rail	109000	60.7088	1.4300e-003	3.0000e-004	60.8309
Total		190.3271	4.5000e-003	9.3000e-004	190.7098

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	203420	113.2971	2.6800e-003	5.5000e-004	113.5249
Parking Lot	29304	16.3212	3.9000e-004	8.0000e-005	16.3540
Unrefrigerated Warehouse-No Rail	109000	60.7088	1.4300e-003	3.0000e-004	60.8309
Total		190.3271	4.5000e-003	9.3000e-004	190.7098

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3077	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003
Unmitigated	0.3077	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003
Total	0.3077	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2613					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003
Total	0.3077	1.0000e-005	9.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7900e-003	1.7900e-003	0.0000	0.0000	1.9000e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	72.0326	0.2711	6.7000e-003	79.8033
Mitigated	72.0326	0.2711	6.6900e-003	79.7991

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	2.48827 / 1.52507	28.2718	0.0817	2.0500e-003	30.6232
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	5.78125 / 0	43.7609	0.1894	4.6500e-003	49.1801
Total		72.0326	0.2711	6.7000e-003	79.8033

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	2.48827 / 1.52507	28.2718	0.0817	2.0500e-003	30.6219
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	5.78125 / 0	43.7609	0.1893	4.6500e-003	49.1772
Total		72.0326	0.2711	6.7000e-003	79.7991

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.4132	0.4381	0.0000	16.6135
Unmitigated	7.4132	0.4381	0.0000	16.6135

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	13.02	2.6429	0.1562	0.0000	5.9230
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	23.5	4.7703	0.2819	0.0000	10.6905
Total		7.4132	0.4381	0.0000	16.6135

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	13.02	2.6429	0.1562	0.0000	5.9230
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	23.5	4.7703	0.2819	0.0000	10.6905
Total		7.4132	0.4381	0.0000	16.6135

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse - 2019 With Project
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	684.51	1000sqft	15.71	684,509.99	0
Strip Mall	36.78	1000sqft	0.84	36,775.04	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Grading - See Appendix B text.

Demolition - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Road Dust - See Appendix B text.

Consumer Products - See Appendix B text.

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy	0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	6,252.8046	6,252.8046	0.1459	0.0360	6,267.0181
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	137.0595	0.0000	137.0595	8.1000	0.0000	307.1592
Water						0.0000	0.0000		0.0000	0.0000	39.4614	1,373.7915	1,413.2528	4.0855	0.1024	1,530.7969
Total	2.6479	0.3699	0.3199	2.2200e-003	0.0000	0.0281	0.0281	0.0000	0.0281	0.0281	176.5209	7,626.6140	7,803.1349	12.3314	0.1384	8,104.9932

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy	0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	5,858.2530	5,858.2530	0.1368	0.0333	5,871.4363
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	41.1179	0.0000	41.1179	2.4300	0.0000	92.1478
Water						0.0000	0.0000		0.0000	0.0000	27.6230	1,081.2577	1,108.8807	2.8627	0.0723	1,191.4020
Total	2.6421	0.3165	0.2751	1.9000e-003	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241	68.7408	6,939.5286	7,008.2694	5.4296	0.1055	7,155.0050

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.22	14.43	14.01	14.41	0.00	14.43	14.43	0.00	14.43	14.43	61.06	9.01	10.19	55.97	23.74	11.72

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510142	0.059804	0.180842	0.139058	0.042603	0.006701	0.016107	0.033206	0.001939	0.002487	0.004384	0.000580	0.002146

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	344.4808	344.4808	6.6000e-003	6.3200e-003	346.5773
NaturalGas Unmitigated	0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	402.5879	402.5879	7.7200e-003	7.3800e-003	405.0380
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,513.7721	5,513.7721	0.1302	0.0269	5,524.8590
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,850.2168	5,850.2168	0.1382	0.0286	5,861.9802

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	7.48169e+006	0.0403	0.3668	0.3081	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.2517	399.2517	7.6500e-003	7.3200e-003	401.6815
Strip Mall	62517.6	3.4000e-004	3.0600e-003	2.5700e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3362	3.3362	6.0000e-005	6.0000e-005	3.3565
Total		0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	402.5879	402.5879	7.7100e-003	7.3800e-003	405.0380

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	6.39948e+006	0.0345	0.3137	0.2635	1.8800e-003		0.0238	0.0238		0.0238	0.0238	0.0000	341.5008	341.5008	6.5500e-003	6.2600e-003	343.5792
Strip Mall	55842.9	3.0000e-004	2.7400e-003	2.3000e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9800	2.9800	6.0000e-005	5.0000e-005	2.9981
Total		0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	344.4808	344.4808	6.6100e-003	6.3100e-003	346.5773

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9.94593e+006	5,539.5005	0.1308	0.0271	5,550.6392
Strip Mall	557877	310.7162	7.3400e-003	1.5200e-003	311.3410
Total		5,850.2168	0.1382	0.0286	5,861.9802

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9.36889e+006	5,218.1104	0.1232	0.0255	5,228.6028
Strip Mall	530848	295.6618	6.9800e-003	1.4400e-003	296.2563
Total		5,513.7721	0.1302	0.0269	5,524.8590

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Unmitigated	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	1,413.2528	4.0855	0.1024	1,530.7969
Mitigated	1,108.8807	2.8627	0.0723	1,191.4020

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	121.661 / 74.5661	1,382.3068	3.9961	0.1002	1,497.2770
Strip Mall	2.72365 / 1.66933	30.9461	0.0895	2.2400e-003	33.5199
Total		1,413.2528	4.0855	0.1024	1,530.7970

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	85.1624 / 74.5661	1,084.599 4	2.8000	0.0707	1,165.313 8
Strip Mall	1.90655 / 1.66933	24.2812	0.0627	1.5800e- 003	26.0882
Total		1,108.880 7	2.8627	0.0723	1,191.402 0

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.1179	2.4300	0.0000	92.1478
Unmitigated	137.0595	8.1000	0.0000	307.1592

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	636.59	129.2220	7.6368	0.0000	289.5949
Strip Mall	38.61	7.8375	0.4632	0.0000	17.5643
Total		137.0595	8.1000	0.0000	307.1592

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	190.977	38.7666	2.2910	0.0000	86.8785
Strip Mall	11.583	2.3512	0.1390	0.0000	5.2693
Total		41.1179	2.4300	0.0000	92.1478

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse - 2025 Without Program
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	684.51	1000sqft	15.71	684,509.99	0
Strip Mall	36.78	1000sqft	0.84	36,775.04	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Grading - See Appendix B text.

Demolition - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Road Dust - See Appendix B text.

Consumer Products - See Appendix B text.

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy	0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	6,252.8046	6,252.8046	0.1459	0.0360	6,267.0181
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	137.0595	0.0000	137.0595	8.1000	0.0000	307.1592
Water						0.0000	0.0000		0.0000	0.0000	39.4614	1,373.7915	1,413.2528	4.0855	0.1024	1,530.7969
Total	2.6479	0.3699	0.3199	2.2200e-003	0.0000	0.0281	0.0281	0.0000	0.0281	0.0281	176.5209	7,626.6140	7,803.1349	12.3314	0.1384	8,104.9932

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Energy	0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	5,858.2530	5,858.2530	0.1368	0.0333	5,871.4363
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	41.1179	0.0000	41.1179	2.4300	0.0000	92.1478
Water						0.0000	0.0000		0.0000	0.0000	27.6230	1,081.2577	1,108.8807	2.8627	0.0723	1,191.4020
Total	2.6421	0.3165	0.2751	1.9000e-003	0.0000	0.0241	0.0241	0.0000	0.0241	0.0241	68.7408	6,939.5286	7,008.2694	5.4296	0.1055	7,155.0050

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.22	14.43	14.01	14.41	0.00	14.43	14.43	0.00	14.43	14.43	61.06	9.01	10.19	55.97	23.74	11.72

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510142	0.059804	0.180842	0.139058	0.042603	0.006701	0.016107	0.033206	0.001939	0.002487	0.004384	0.000580	0.002146

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	344.4808	344.4808	6.6000e-003	6.3200e-003	346.5773
NaturalGas Unmitigated	0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	402.5879	402.5879	7.7200e-003	7.3800e-003	405.0380
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,513.7721	5,513.7721	0.1302	0.0269	5,524.8590
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,850.2168	5,850.2168	0.1382	0.0286	5,861.9802

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	7.48169e+006	0.0403	0.3668	0.3081	2.2000e-003		0.0279	0.0279		0.0279	0.0279	0.0000	399.2517	399.2517	7.6500e-003	7.3200e-003	401.6815
Strip Mall	62517.6	3.4000e-004	3.0600e-003	2.5700e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3362	3.3362	6.0000e-005	6.0000e-005	3.3565
Total		0.0407	0.3698	0.3106	2.2200e-003		0.0281	0.0281		0.0281	0.0281	0.0000	402.5879	402.5879	7.7100e-003	7.3800e-003	405.0380

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	6.39948e+006	0.0345	0.3137	0.2635	1.8800e-003		0.0238	0.0238		0.0238	0.0238	0.0000	341.5008	341.5008	6.5500e-003	6.2600e-003	343.5792
Strip Mall	55842.9	3.0000e-004	2.7400e-003	2.3000e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9800	2.9800	6.0000e-005	5.0000e-005	2.9981
Total		0.0348	0.3164	0.2658	1.9000e-003		0.0241	0.0241		0.0241	0.0241	0.0000	344.4808	344.4808	6.6100e-003	6.3100e-003	346.5773

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9.94593e+006	5,539.5005	0.1308	0.0271	5,550.6392
Strip Mall	557877	310.7162	7.3400e-003	1.5200e-003	311.3410
Total		5,850.2168	0.1382	0.0286	5,861.9802

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	9.36889e+006	5,218.1104	0.1232	0.0255	5,228.6028
Strip Mall	530848	295.6618	6.9800e-003	1.4400e-003	296.2563
Total		5,513.7721	0.1302	0.0269	5,524.8590

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Unmitigated	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6064					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189
Total	2.6072	9.0000e-005	9.3000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0189

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	1,413.2528	4.0855	0.1024	1,530.7969
Mitigated	1,108.8807	2.8627	0.0723	1,191.4020

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	121.661 / 74.5661	1,382.3068	3.9961	0.1002	1,497.2770
Strip Mall	2.72365 / 1.66933	30.9461	0.0895	2.2400e-003	33.5199
Total		1,413.2528	4.0855	0.1024	1,530.7970

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	85.1624 / 74.5661	1,084.599 4	2.8000	0.0707	1,165.313 8
Strip Mall	1.90655 / 1.66933	24.2812	0.0627	1.5800e- 003	26.0882
Total		1,108.880 7	2.8627	0.0723	1,191.402 0

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.1179	2.4300	0.0000	92.1478
Unmitigated	137.0595	8.1000	0.0000	307.1592

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	636.59	129.2220	7.6368	0.0000	289.5949
Strip Mall	38.61	7.8375	0.4632	0.0000	17.5643
Total		137.0595	8.1000	0.0000	307.1592

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	190.977	38.7666	2.2910	0.0000	86.8785
Strip Mall	11.583	2.3512	0.1390	0.0000	5.2693
Total		41.1179	2.4300	0.0000	92.1478

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse - 2025 With Program: MSC
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,245.04	1000sqft	28.58	1,245,042.37	0
Strip Mall	66.89	1000sqft	1.54	66,889.43	0
General Light Industry	24.00	1000sqft	0.55	24,000.00	0
General Office Building	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Grading - See Appendix B text.

Demolition - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Road Dust - See Appendix B text.

Consumer Products - See Appendix B text.

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	0

tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstructionPhase	NumDays	30.00	0.00
tblLandUse	LandUseSquareFeet	1,245,040.00	1,245,042.37
tblLandUse	LandUseSquareFeet	66,890.00	66,889.43
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.00
tblOnRoadDust	MaterialSiltContent	8.50	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	0.00
tblOnRoadDust	RoadSiltLoading	0.10	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00

tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	2.37	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30

tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.4056	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Energy	0.0768	0.6980	0.5863	4.1900e-003		0.0531	0.0531		0.0531	0.0531	0.0000	11,610.3283	11,610.3283	0.2708	0.0670	11,636.7704
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	256.4710	0.0000	256.4710	15.1570	0.0000	574.7680
Water						0.0000	0.0000		0.0000	0.0000	73.8747	2,550.7946	2,624.6693	7.6479	0.1916	2,844.6786
Total	6.4824	0.6981	0.6034	4.1900e-003	0.0000	0.0531	0.0531	0.0000	0.0531	0.0531	330.3457	14,161.1562	14,491.5019	23.0758	0.2586	15,056.2521

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.4726	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Energy	0.0658	0.5979	0.5022	3.5900e-003		0.0454	0.0454		0.0454	0.0454	0.0000	10,881.0897	10,881.0897	0.2541	0.0619	10,905.6215
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	76.9413	0.0000	76.9413	4.5471	0.0000	172.4304
Water						0.0000	0.0000		0.0000	0.0000	51.7123	2,003.1489	2,054.8612	5.3587	0.1352	2,209.3052
Total	5.5384	0.5981	0.5193	3.5900e-003	0.0000	0.0455	0.0455	0.0000	0.0455	0.0455	128.6536	12,884.2719	13,012.9255	10.1599	0.1971	13,287.3922

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	14.56	14.34	13.93	14.32	0.00	14.33	14.33	0.00	14.33	14.33	61.05	9.02	10.20	55.97	23.77	11.75

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	0	8.00	162	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Light Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.499131	0.060194	0.182964	0.141782	0.044131	0.007011	0.016488	0.036565	0.002001	0.002519	0.004202	0.000556	0.002456

5.0 Energy Detail

2.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0658	0.5979	0.5022	3.5900e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.8950	650.8950	0.0125	0.0119	654.8562
NaturalGas Unmitigated	0.0768	0.6980	0.5863	4.1900e-003		0.0531	0.0531		0.0531	0.0531	0.0000	759.8497	759.8497	0.0146	0.0139	764.4740
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10,230.1948	10,230.1948	0.2416	0.0500	10,250.7653
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10,850.4786	10,850.4786	0.2563	0.0530	10,872.2964

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	451440	2.4300e-003	0.0221	0.0186	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	24.0906	24.0906	4.6000e-004	4.4000e-004	24.2372
General Office Building	1.36083e+007	0.0734	0.6671	0.5603	4.0000e-003		0.0507	0.0507		0.0507	0.0507	0.0000	726.1914	726.1914	0.0139	0.0133	730.6109
General Office Building	65580	3.5000e-004	3.2100e-003	2.7000e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.4996	3.4996	7.0000e-005	6.0000e-005	3.5209
Strip Mall	113712	6.1000e-004	5.5700e-003	4.6800e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0681	6.0681	1.2000e-004	1.1000e-004	6.1050
Total		0.0768	0.6980	0.5863	4.1800e-003		0.0530	0.0530		0.0530	0.0530	0.0000	759.8497	759.8497	0.0146	0.0139	764.4740

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	399744	2.1600e-003	0.0196	0.0165	1.2000e-004		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	21.3319	21.3319	4.1000e-004	3.9000e-004	21.4617
General Office Building	1.16399e+007	0.0628	0.5706	0.4793	3.4200e-003		0.0434	0.0434		0.0434	0.0434	0.0000	621.1495	621.1495	0.0119	0.0114	624.9297
General Office Building	56094	3.0000e-004	2.7500e-003	2.3100e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	2.9934	2.9934	6.0000e-005	5.0000e-005	3.0116
Strip Mall	101572	5.5000e-004	4.9800e-003	4.1800e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004	0.0000	5.4203	5.4203	1.0000e-004	1.0000e-004	5.4532
Total		0.0658	0.5979	0.5022	3.5900e-003		0.0454	0.0454		0.0454	0.0454	0.0000	650.8950	650.8950	0.0125	0.0119	654.8562

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	289200	161.0733	3.8000e-003	7.9000e-004	161.3972
General Office Building	1.80905e+007	10,075.6935	0.2380	0.0492	10,095.9534
General Office Building	87180	48.5559	1.1500e-003	2.4000e-004	48.6535
Strip Mall	1.01471e+006	565.1559	0.0134	2.7600e-003	566.2923
Total		10,850.4786	0.2563	0.0530	10,872.2964

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	279300	155.5594	3.6700e-003	7.6000e-004	155.8722
General Office Building	1.70409e+007	9,491.1230	0.2242	0.0464	9,510.2074
General Office Building	82122	45.7388	1.0800e-003	2.2000e-004	45.8308
Strip Mall	965549	537.7736	0.0127	2.6300e-003	538.8550
Total		10,230.1948	0.2416	0.0500	10,250.7653

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.4726	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Unmitigated	6.4056	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5550					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8491					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5700e-003	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Total	6.4056	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.8491					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5700e-003	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351
Total	5.4726	1.5000e-004	0.0171	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0333	0.0333	9.0000e-005	0.0000	0.0351

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	2,624.669 3	7.6479	0.1916	2,844.678 6
Mitigated	2,054.861 2	5.3587	0.1352	2,209.305 2

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.55 / 0	42.0105	0.1818	4.4700e- 003	47.2129
General Office Building	222.352 / 136.28	2,526.363 5	7.3033	0.1831	2,736.488 0
Strip Mall	4.95471 / 3.03676	56.2954	0.1627	4.0800e- 003	60.9777
Total		2,624.669 3	7.6479	0.1916	2,844.678 6

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	3.885 / 0	28.4294	0.1272	3.1200e-003	32.0692
General Office Building	155.646 / 136.28	1,982.260 7	5.1174	0.1292	2,129.777 8
Strip Mall	3.4683 / 3.03676	44.1711	0.1140	2.8800e-003	47.4582
Total		2,054.861 2	5.3587	0.1352	2,209.305 2

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	76.9413	4.5471	0.0000	172.4304
Unmitigated	256.4710	15.1570	0.0000	574.7680

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	29.76	6.0410	0.3570	0.0000	13.5383
General Office Building	1163.47	236.1739	13.9575	0.0000	529.2809
Strip Mall	70.23	14.2561	0.8425	0.0000	31.9487
Total		256.4710	15.1570	0.0000	574.7680

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	8.928	1.8123	0.1071	0.0000	4.0615
General Office Building	349.041	70.8522	4.1872	0.0000	158.7843
Strip Mall	21.069	4.2768	0.2528	0.0000	9.5846
Total		76.9413	4.5471	0.0000	172.4304

9.0 Operational Offroad

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

LAX Midfield Satellite Concourse: CTP
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	284.71	1000sqft	6.54	284,713.35	0
Strip Mall	15.29	1000sqft	0.35	15,286.65	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	11			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Appendix B text.

Land Use - See Appendix B text.

Construction Phase - See Appendix B text.

Off-road Equipment - See Appendix B text.

Trips and VMT - See Appendix B text.

On-road Fugitive Dust - See Appendix B text.

Vehicle Trips - See Appendix B text.

Energy Use -

Area Mitigation - See Appendix B text.

Energy Mitigation - See Appendix B text.

Water Mitigation - See Appendix B text.

Waste Mitigation - See Appendix B text.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	100	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	284,710.00	284,713.35
tblLandUse	LandUseSquareFeet	15,290.00	15,286.65
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	MaterialMoistureContent	0.50	0.00

tblOnRoadDust	MaterialSiltContent	8.50	0.00
tblOnRoadDust	MeanVehicleSpeed	40.00	0.00
tblOnRoadDust	RoadSiltLoading	0.10	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2025
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TTP	48.00	0.00
tblVehicleTrips	CC_TTP	64.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CNW_TTP	19.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	33.00	0.00
tblVehicleTrips	CW_TTP	16.60	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	77.00	0.00
tblVehicleTrips	PR_TP	45.00	0.00
tblVehicleTrips	ST_TR	2.37	0.00

tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	0.98	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	11.01	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWaterMitigation	PercentReductionInFlowBathroomFaucet	32	30
tblWaterMitigation	PercentReductionInFlowKitchenFaucet	18	30
tblWaterMitigation	PercentReductionInFlowShower	20	30
tblWaterMitigation	PercentReductionInFlowToilet	20	30

2.0 Emissions Summary

[illegible]

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4320	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Energy	0.0169	0.1538	0.1292	9.2000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	2,600.6949	2,600.6949	0.0607	0.0150	2,606.6066
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	57.0060	0.0000	57.0060	3.3690	0.0000	127.7540
Water						0.0000	0.0000		0.0000	0.0000	16.4132	571.4015	587.8146	1.6993	0.0426	636.7048
Total	1.4490	0.1539	0.1330	9.2000e-004	0.0000	0.0117	0.0117	0.0000	0.0117	0.0117	73.4191	3,172.1038	3,245.5229	5.1290	0.0576	3,371.0733

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2235	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Energy	0.0145	0.1316	0.1106	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	2,436.5900	2,436.5900	0.0569	0.0138	2,442.0733
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	17.1018	0.0000	17.1018	1.0107	0.0000	38.3262
Water						0.0000	0.0000		0.0000	0.0000	11.4892	449.7278	461.2170	1.1907	0.0301	495.5402
Total	1.2379	0.1317	0.1144	7.9000e-004	0.0000	0.0100	0.0100	0.0000	0.0100	0.0100	28.5910	2,886.3253	2,914.9163	2.2583	0.0439	2,975.9475

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	14.56	14.43	14.02	14.13	0.00	14.44	14.44	0.00	14.44	14.44	61.06	9.01	10.19	55.97	23.75	11.72

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	1/1/2014	12/31/2013	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

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	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Strip Mall	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.499131	0.060194	0.182964	0.141782	0.044131	0.007011	0.016488	0.036565	0.002001	0.002519	0.004202	0.000556	0.002456

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0145	0.1316	0.1106	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.2817	143.2817	2.7500e-003	2.6300e-003	144.1537
NaturalGas Unmitigated	0.0169	0.1538	0.1292	9.2000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	167.4505	167.4505	3.2100e-003	3.0700e-003	168.4696
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,293.3083	2,293.3083	0.0542	0.0112	2,297.9196
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,433.2443	2,433.2443	0.0575	0.0119	2,438.1370

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	3.11192e+006	0.0168	0.1525	0.1281	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.0637	166.0637	3.1800e-003	3.0400e-003	167.0744
Strip Mall	25987.3	1.4000e-004	1.2700e-003	1.0700e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3868	1.3868	3.0000e-005	3.0000e-005	1.3952
Total		0.0169	0.1538	0.1292	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	167.4505	167.4505	3.2100e-003	3.0700e-003	168.4696

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	2.66179e+006	0.0144	0.1305	0.1096	7.8000e-004		9.9200e-003	9.9200e-003		9.9200e-003	9.9200e-003	0.0000	142.0430	142.0430	2.7200e-003	2.6000e-003	142.9074
Strip Mall	23212.8	1.3000e-004	1.1400e-003	9.6000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2387	1.2387	2.0000e-005	2.0000e-005	1.2463
Total		0.0145	0.1316	0.1106	7.9000e-004		0.0100	0.0100		0.0100	0.0100	0.0000	143.2817	143.2817	2.7400e-003	2.6200e-003	144.1537

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	4.13688e+006	2,304.0858	0.0544	0.0113	2,308.7188
Strip Mall	231898	129.1585	3.0500e-003	6.3000e-004	129.4182
Total		2,433.2443	0.0575	0.0119	2,438.1370

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	3.89687e+006	2,170.4076	0.0513	0.0106	2,174.7718
Strip Mall	220663	122.9007	2.9000e-003	6.0000e-004	123.1478
Total		2,293.3083	0.0542	0.0112	2,297.9196

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2235	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Unmitigated	1.4320	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3476					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Total	1.4320	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1391					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0841					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5000e-004	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003
Total	1.2235	3.0000e-005	3.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.4500e-003	7.4500e-003	2.0000e-005	0.0000	7.8500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	587.8146	1.6993	0.0426	636.7048
Mitigated	461.2170	1.1907	0.0301	495.5402

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	50.6026 / 31.0145	574.9464	1.6621	0.0417	622.7663
Strip Mall	1.13257 / 0.694155	12.8683	0.0372	9.3000e-004	13.9385
Total		587.8147	1.6993	0.0426	636.7048

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	35.4218 / 31.0145	451.1202	1.1646	0.0294	484.6920
Strip Mall	0.792798 / 0.694155	10.0968	0.0261	6.6000e-004	10.8482
Total		461.2170	1.1907	0.0301	495.5402

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.1018	1.0107	0.0000	38.3262
Unmitigated	57.0060	3.3690	0.0000	127.7540

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	264.78	53.7480	3.1764	0.0000	120.4526
Strip Mall	16.05	3.2580	0.1925	0.0000	7.3014
Total		57.0060	3.3690	0.0000	127.7540

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	79.434	16.1244	0.9529	0.0000	36.1358
Strip Mall	4.815	0.9774	0.0578	0.0000	2.1904
Total		17.1018	1.0107	0.0000	38.3262

9.0 Operational Offroad

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

Attachment B.5

Operations – Localized Significance Thresholds (LST) Dispersion Modeling

- Runway Use Percentages
 - 2012 Existing
 - 2019 With Project
 - 2019 Without Project
- ANOMS Daily and Monthly Temporal Factors
- Receptor Locations
- Output Files Summaries
 - CO
 - NO₂
 - SO₂
 - PM₁₀
 - PM_{2.5}

Attachment B.5

Operations – Localized Significance Thresholds (LST) Dispersion Modeling

- Runway Use Percentages
 - 2012 Existing
 - 2019 With Project
 - 2019 Without Project

MSC North Project Draft EIR
2012 Runway Use Configurations

Arrivals

<u>Aircraft Class</u>	<u>Runway</u>				<u>Grand Total</u>
	<u>24L</u>	<u>24R</u>	<u>25L</u>	<u>25R</u>	
Heavy	0.83%	47.93%	45.45%	5.79%	100%
Large	3.47%	52.82%	41.82%	1.88%	100%
Small	2.56%	42.31%	53.85%	1.28%	100%
Grand Total	3.03%	51.24%	43.37%	2.36%	100%

Departures

<u>Aircraft Class</u>	<u>Runway</u>				<u>Grand Total</u>
	<u>24L</u>	<u>24R</u>	<u>25L</u>	<u>25R</u>	
Heavy	26.27%	0.00%	4.24%	69.49%	100%
Large	50.22%	0.72%	0.00%	49.06%	100%
Small	39.74%	3.85%	3.85%	52.56%	100%
Grand Total	46.11%	0.90%	0.90%	52.09%	100%

MSC North Project Draft EIR
2019 With Project Runway Use Configurations

Arrivals

<u>Aircraft Class</u>	<u>Runway</u>				<u>Grand Total</u>
	<u>24L</u>	<u>24R</u>	<u>25L</u>	<u>25R</u>	
Heavy	5.76%	51.08%	41.73%	1.44%	100%
Large	5.20%	54.35%	39.47%	0.98%	100%
Small	3.75%	41.25%	53.75%	1.25%	100%
Grand Total	5.16%	52.74%	41.03%	1.07%	100%

Departures

<u>Aircraft Class</u>	<u>Runway</u>				<u>Grand Total</u>
	<u>24L</u>	<u>24R</u>	<u>25L</u>	<u>25R</u>	
Heavy	28.47%	0.00%	5.84%	65.69%	100%
Large	54.33%	0.85%	0.28%	44.54%	100%
Small	33.75%	5.00%	8.75%	52.50%	100%
Grand Total	48.70%	1.08%	1.84%	48.37%	100%

MSC North Project Draft EIR
2019 Without Project Runway Use Configurations

Arrivals

<u>Aircraft Class</u>	<u>Runway</u>				<u>Grand Total</u>
	<u>24L</u>	<u>24R</u>	<u>25L</u>	<u>25R</u>	
Heavy	2.16%	53.96%	41.01%	2.88%	100%
Large	5.06%	54.07%	39.04%	1.83%	100%
Small	2.50%	41.25%	52.50%	3.75%	100%
Grand Total	4.40%	52.95%	40.49%	2.15%	100%

Departures

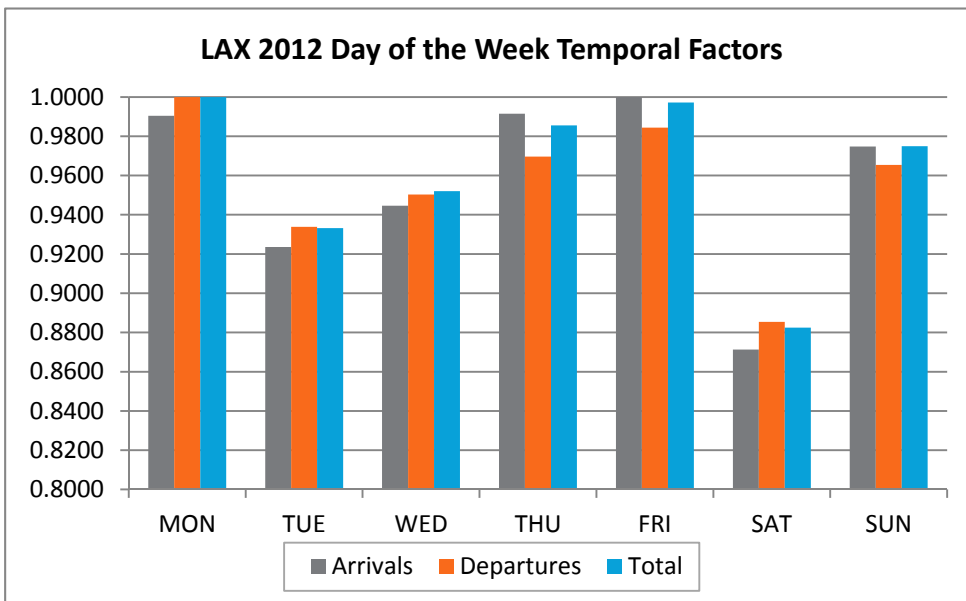
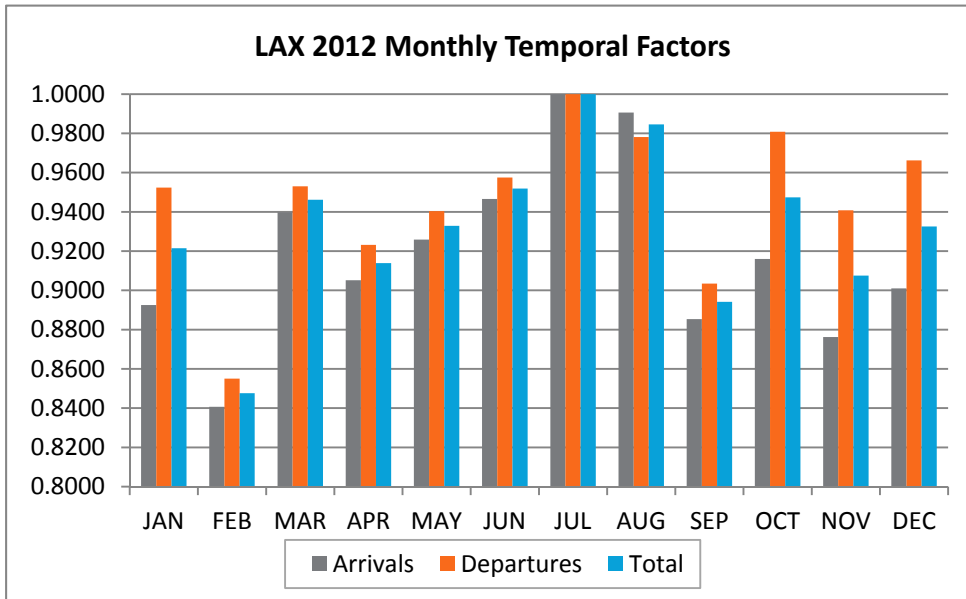
<u>Aircraft Class</u>	<u>Runway</u>				<u>Grand Total</u>
	<u>24L</u>	<u>24R</u>	<u>25L</u>	<u>25R</u>	
Heavy	24.09%	0.00%	7.30%	68.61%	100%
Large	53.76%	0.85%	0.28%	45.11%	100%
Small	32.50%	2.50%	11.25%	53.75%	100%
Grand Total	47.51%	0.87%	2.28%	49.35%	100%

Attachment B.5

Operations – Localized Significance Thresholds (LST) Dispersion Modeling

- ANOMS Daily and Monthly Temporal Factors

MSC North Project Draft EIR
Operational Dispersion: Monthly and Day of the Week Temporal Factors



Attachment B.5

Operations – Localized Significance Thresholds (LST) Dispersion Modeling

- Receptor Locations

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_1	Recreational	367379	755396	367379, 755396
Receptor_2	Recreational	367340	755485	367340, 755485
Receptor_3	Recreational	367301	755573	367301, 755573
Receptor_4	Recreational	367263	755661	367263, 755661
Receptor_5	Recreational	367224	755749	367224, 755749
Receptor_6	Recreational	367186	755838	367186, 755838
Receptor_7	Recreational	367147	755926	367147, 755926
Receptor_8	Recreational	367109	756014	367109, 756014
Receptor_9	Recreational	367070	756103	367070, 756103
Receptor_10	Recreational	367032	756191	367032, 756191
Receptor_11	Recreational	366993	756279	366993, 756279
Receptor_12	Recreational	366954	756367	366954, 756367
Receptor_13	Recreational	366916	756456	366916, 756456
Receptor_14	Recreational	366877	756544	366877, 756544
Receptor_15	Recreational	366839	756632	366839, 756632
Receptor_16	Recreational	366800	756720	366800, 756720
Receptor_17	Recreational	366762	756809	366762, 756809
Receptor_18	Recreational	366723	756897	366723, 756897
Receptor_19	Recreational	366685	756985	366685, 756985
Receptor_20	Recreational	366646	757074	366646, 757074
Receptor_21	Recreational	366607	757162	366607, 757162
Receptor_22	Recreational	366569	757250	366569, 757250
Receptor_23	Recreational	366530	757338	366530, 757338
Receptor_24	Recreational	366492	757427	366492, 757427
Receptor_25	Recreational	366453	757515	366453, 757515
Receptor_26	Recreational	366415	757603	366415, 757603
Receptor_27	Recreational	366376	757692	366376, 757692
Receptor_28	Residential	366338	757780	366338, 757780
Receptor_29	Residential	366402	757746	366402, 757746
Receptor_30	Residential	366467	757713	366467, 757713
Receptor_31	Residential	366531	757679	366531, 757679
Receptor_32	Residential	366567	757773	366567, 757773
Receptor_33	Residential	366625	757758	366625, 757758
Receptor_34	Residential	366682	757744	366682, 757744
Receptor_35	Residential	366768	757788	366768, 757788
Receptor_36	Residential	366854	757833	366854, 757833
Receptor_37	Residential	366941	757877	366941, 757877
Receptor_38	Residential	367027	757922	367027, 757922
Receptor_39	Residential	367113	757966	367113, 757966
Receptor_40	Residential	367192	757916	367192, 757916
Receptor_41	Residential	367264	757916	367264, 757916
Receptor_42	Residential	367335	757916	367335, 757916
Receptor_43	Residential	367343	757966	367343, 757966

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_44	Residential	367404	757995	367404, 757995
Receptor_45	Residential	367465	758024	367465, 758024
Receptor_46	School	367504	757948	367504, 757948
Receptor_47	School	367544	757873	367544, 757873
Receptor_48	School	367587	757909	367587, 757909
Receptor_49	School	367623	757866	367623, 757866
Receptor_50	School	367694	757866	367694, 757866
Receptor_51	School	367716	757927	367716, 757927
Receptor_52	School	367737	757988	367737, 757988
Receptor_53	School	367727	758067	367727, 758067
Receptor_54	School	367716	758146	367716, 758146
Receptor_55	Residential	367673	758189	367673, 758189
Receptor_56	School	367723	758254	367723, 758254
Receptor_57	School	367784	758221	367784, 758221
Receptor_58	School	367845	758189	367845, 758189
Receptor_59	Residential	367816	758096	367816, 758096
Receptor_60	Residential	367898	758066	367898, 758066
Receptor_61	Residential	367980	758035	367980, 758035
Receptor_62	Residential	368062	758005	368062, 758005
Receptor_63	Residential	368144	757975	368144, 757975
Receptor_64	Residential	368226	757945	368226, 757945
Receptor_65	Residential	368301	757943	368301, 757943
Receptor_66	Residential	368376	757941	368376, 757941
Receptor_67	Residential	368452	757940	368452, 757940
Receptor_68	Residential	368527	757938	368527, 757938
Receptor_69	Residential	368563	757880	368563, 757880
Receptor_70	Residential	368636	757926	368636, 757926
Receptor_71	Residential	368709	757971	368709, 757971
Receptor_72	Residential	368782	758017	368782, 758017
Receptor_73	Residential	368855	758062	368855, 758062
Receptor_74	Residential	368928	758108	368928, 758108
Receptor_75	Residential	369001	758153	369001, 758153
Receptor_76	Residential	369058	758074	369058, 758074
Receptor_77	Residential	369102	758103	369102, 758103
Receptor_78	Residential	369145	758132	369145, 758132
Receptor_79	Residential	369200	758065	369200, 758065
Receptor_80	Residential	369255	757998	369255, 757998
Receptor_81	Residential	369310	757931	369310, 757931
Receptor_82	Residential	369356	757981	369356, 757981
Receptor_83	Residential	369403	758031	369403, 758031
Receptor_84	Recreational	369336	758100	369336, 758100
Receptor_85	Recreational	369269	758170	369269, 758170
Receptor_86	Recreational	369202	758239	369202, 758239

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_87	Recreational	369264	758285	369264, 758285
Receptor_88	Recreational	369326	758330	369326, 758330
Receptor_89	Recreational	369389	758376	369389, 758376
Receptor_90	Recreational	369389	758462	369389, 758462
Receptor_91	Recreational	369389	758548	369389, 758548
Receptor_92	Residential	369389	758634	369389, 758634
Receptor_93	Residential	369469	758630	369469, 758630
Receptor_94	Residential	369549	758625	369549, 758625
Receptor_95	Residential	369630	758621	369630, 758621
Receptor_96	Residential	369710	758617	369710, 758617
Receptor_97	Residential	369791	758613	369791, 758613
Receptor_98	Residential	369791	758514	369791, 758514
Receptor_99	Residential	369791	758416	369791, 758416
Receptor_100	Residential	369791	758318	369791, 758318
Receptor_101	Residential	369881	758318	369881, 758318
Receptor_102	Residential	369972	758318	369972, 758318
Receptor_103	Residential	370062	758318	370062, 758318
Receptor_104	Residential	370153	758318	370153, 758318
Receptor_105	Residential	370243	758318	370243, 758318
Receptor_106	School	370247	758254	370247, 758254
Receptor_107	School	370250	758189	370250, 758189
Receptor_108	School	370308	758196	370308, 758196
Receptor_109	School	370361	758236	370361, 758236
Receptor_110	School	370415	758275	370415, 758275
Receptor_111	Residential	370408	758347	370408, 758347
Receptor_112	Residential	370490	758344	370490, 758344
Receptor_113	Residential	370572	758341	370572, 758341
Receptor_114	Residential	370654	758338	370654, 758338
Receptor_115	Residential	370735	758335	370735, 758335
Receptor_116	Residential	370817	758333	370817, 758333
Receptor_117	Offsite Worker	370814	758243	370814, 758243
Receptor_118	Offsite Worker	370810	758153	370810, 758153
Receptor_119	Offsite Worker	370807	758063	370807, 758063
Receptor_120	Offsite Worker	370803	757974	370803, 757974
Receptor_121	Offsite Worker	370835	757927	370835, 757927
Receptor_122	Offsite Worker	370868	757880	370868, 757880
Receptor_123	Offsite Worker	370921	757884	370921, 757884
Receptor_124	Offsite Worker	370975	757887	370975, 757887
Receptor_125	Offsite Worker	370975	757794	370975, 757794
Receptor_126	Offsite Worker	371026	757794	371026, 757794
Receptor_127	Offsite Worker	371076	757877	371076, 757877
Receptor_128	Offsite Worker	371126	757959	371126, 757959
Receptor_129	Offsite Worker	371119	758031	371119, 758031

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_130	Residential	371183	758027	371183, 758027
Receptor_131	Residential	371248	758024	371248, 758024
Receptor_132	Residential	371326	758075	371326, 758075
Receptor_133	Residential	371404	758127	371404, 758127
Receptor_134	Residential	371481	758178	371481, 758178
Receptor_135	Residential	371559	758230	371559, 758230
Receptor_136	Residential	371637	758281	371637, 758281
Receptor_137	Residential	371715	758333	371715, 758333
Receptor_138	Residential	371769	758261	371769, 758261
Receptor_139	Residential	371822	758189	371822, 758189
Receptor_140	Residential	371894	758160	371894, 758160
Receptor_141	Residential	371894	758081	371894, 758081
Receptor_142	Residential	371959	758074	371959, 758074
Receptor_143	Offsite Worker	371953	757977	371953, 757977
Receptor_144	Offsite Worker	371948	757880	371948, 757880
Receptor_145	Offsite Worker	371943	757783	371943, 757783
Receptor_146	Offsite Worker	372016	757794	372016, 757794
Receptor_147	Offsite Worker	372102	757791	372102, 757791
Receptor_148	Offsite Worker	372178	757760	372178, 757760
Receptor_149	Offsite Worker	372177	757670	372177, 757670
Receptor_150	Offsite Worker	372176	757579	372176, 757579
Receptor_151	Offsite Worker	372174	757489	372174, 757489
Receptor_152	Offsite Worker	372173	757398	372173, 757398
Receptor_153	Offsite Worker	372171	757308	372171, 757308
Receptor_154	Offsite Worker	372055	757309	372055, 757309
Receptor_155	Residential	372055	757363	372055, 757363
Receptor_156	Offsite Worker	372055	757416	372055, 757416
Receptor_157	Offsite Worker	371952	757442	371952, 757442
Receptor_158	Offsite Worker	371950	757345	371950, 757345
Receptor_159	Offsite Worker	371864	757344	371864, 757344
Receptor_160	Offsite Worker	371790	757347	371790, 757347
Receptor_161	Offsite Worker	371708	757356	371708, 757356
Receptor_162	Offsite Worker	371615	757356	371615, 757356
Receptor_163	Offsite Worker	371523	757356	371523, 757356
Receptor_164	Offsite Worker	371430	757356	371430, 757356
Receptor_165	Offsite Worker	371338	757356	371338, 757356
Receptor_166	Offsite Worker	371245	757356	371245, 757356
Receptor_167	Offsite Worker	371153	757356	371153, 757356
Receptor_168	Offsite Worker	371061	757356	371061, 757356
Receptor_169	Offsite Worker	371005	757357	371005, 757357
Receptor_170	Offsite Worker	370998	757293	370998, 757293
Receptor_171	Offsite Worker	370998	757194	370998, 757194
Receptor_172	Offsite Worker	370998	757096	370998, 757096

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_173	Offsite Worker	370998	756998	370998, 756998
Receptor_174	Offsite Worker	371057	756997	371057, 756997
Receptor_175	Offsite Worker	371153	756997	371153, 756997
Receptor_176	Offsite Worker	371249	756997	371249, 756997
Receptor_177	Offsite Worker	371345	756997	371345, 756997
Receptor_178	Offsite Worker	371440	756997	371440, 756997
Receptor_179	Offsite Worker	371536	756997	371536, 756997
Receptor_180	Offsite Worker	371632	756997	371632, 756997
Receptor_181	Offsite Worker	371728	756997	371728, 756997
Receptor_182	Offsite Worker	371824	756997	371824, 756997
Receptor_183	Offsite Worker	371920	756997	371920, 756997
Receptor_184	Offsite Worker	372016	756997	372016, 756997
Receptor_185	Offsite Worker	372111	756997	372111, 756997
Receptor_186	Offsite Worker	372207	756997	372207, 756997
Receptor_187	Offsite Worker	372303	756997	372303, 756997
Receptor_188	Offsite Worker	372399	756997	372399, 756997
Receptor_189	Offsite Worker	372495	756997	372495, 756997
Receptor_190	Offsite Worker	372591	756997	372591, 756997
Receptor_191	Offsite Worker	372610	757063	372610, 757063
Receptor_192	Offsite Worker	372612	757132	372612, 757132
Receptor_193	Offsite Worker	372614	757201	372614, 757201
Receptor_194	Offsite Worker	372616	757270	372616, 757270
Receptor_195	Offsite Worker	372627	757351	372627, 757351
Receptor_196	Offsite Worker	372651	757422	372651, 757422
Receptor_197	Offsite Worker	372676	757494	372676, 757494
Receptor_198	Offsite Worker	372704	757569	372704, 757569
Receptor_199	Offsite Worker	372733	757645	372733, 757645
Receptor_200	Offsite Worker	372746	757702	372746, 757702
Receptor_201	Offsite Worker	372746	757768	372746, 757768
Receptor_202	Offsite Worker	372807	757781	372807, 757781
Receptor_203	Offsite Worker	372901	757782	372901, 757782
Receptor_204	Offsite Worker	372994	757783	372994, 757783
Receptor_205	Offsite Worker	373087	757783	373087, 757783
Receptor_206	Offsite Worker	373180	757784	373180, 757784
Receptor_207	Offsite Worker	373274	757785	373274, 757785
Receptor_208	Offsite Worker	373367	757786	373367, 757786
Receptor_209	Offsite Worker	373418	757742	373418, 757742
Receptor_210	Offsite Worker	373418	757653	373418, 757653
Receptor_211	Offsite Worker	373419	757564	373419, 757564
Receptor_212	Offsite Worker	373419	757475	373419, 757475
Receptor_213	Offsite Worker	373420	757386	373420, 757386
Receptor_214	Offsite Worker	373420	757297	373420, 757297
Receptor_215	Offsite Worker	373421	757207	373421, 757207

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

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Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_216	Offsite Worker	373421	757118	373421, 757118
Receptor_217	Offsite Worker	373292	757117	373292, 757117
Receptor_218	Offsite Worker	373213	757118	373213, 757118
Receptor_219	Offsite Worker	373158	757066	373158, 757066
Receptor_220	Offsite Worker	373084	757026	373084, 757026
Receptor_221	Offsite Worker	373009	757011	373009, 757011
Receptor_222	Offsite Worker	372922	757009	372922, 757009
Receptor_223	Offsite Worker	372835	757007	372835, 757007
Receptor_224	Offsite Worker	372747	757006	372747, 757006
Receptor_225	Offsite Worker	372660	757004	372660, 757004
Receptor_226	Offsite Worker	372651	757063	372651, 757063
Receptor_227	Offsite Worker	372629	756931	372629, 756931
Receptor_228	Offsite Worker	372631	756857	372631, 756857
Receptor_229	Offsite Worker	372634	756783	372634, 756783
Receptor_230	Offsite Worker	372702	756778	372702, 756778
Receptor_231	Offsite Worker	372756	756775	372756, 756775
Receptor_232	Offsite Worker	372729	756712	372729, 756712
Receptor_233	Offsite Worker	372703	756650	372703, 756650
Receptor_234	Offsite Worker	372677	756588	372677, 756588
Receptor_235	Offsite Worker	372619	756588	372619, 756588
Receptor_236	Offsite Worker	372622	756509	372622, 756509
Receptor_237	Offsite Worker	372700	756511	372700, 756511
Receptor_238	Offsite Worker	372789	756510	372789, 756510
Receptor_239	Offsite Worker	372871	756509	372871, 756509
Receptor_240	Offsite Worker	372871	756437	372871, 756437
Receptor_241	Offsite Worker	372970	756437	372970, 756437
Receptor_242	Offsite Worker	373069	756437	373069, 756437
Receptor_243	Offsite Worker	373168	756437	373168, 756437
Receptor_244	Offsite Worker	373267	756437	373267, 756437
Receptor_245	Offsite Worker	373412	756437	373412, 756437
Receptor_246	Offsite Worker	373409	756339	373409, 756339
Receptor_247	Offsite Worker	373406	756240	373406, 756240
Receptor_248	Offsite Worker	373403	756142	373403, 756142
Receptor_249	Offsite Worker	373400	756042	373400, 756042
Receptor_250	Offsite Worker	373397	755944	373397, 755944
Receptor_251	Offsite Worker	373393	755846	373393, 755846
Receptor_252	Offsite Worker	373390	755747	373390, 755747
Receptor_253	Offsite Worker	373309	755744	373309, 755744
Receptor_254	Offsite Worker	373229	755743	373229, 755743
Receptor_255	Offsite Worker	373143	755741	373143, 755741
Receptor_256	Offsite Worker	373143	755823	373143, 755823
Receptor_257	Offsite Worker	373143	755906	373143, 755906
Receptor_258	Offsite Worker	373065	755906	373065, 755906

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_259	Offsite Worker	373065	755827	373065, 755827
Receptor_260	Offsite Worker	373068	755733	373068, 755733
Receptor_261	Offsite Worker	373007	755733	373007, 755733
Receptor_262	Offsite Worker	372941	755733	372941, 755733
Receptor_263	Offsite Worker	372941	755636	372941, 755636
Receptor_264	Offsite Worker	372941	755539	372941, 755539
Receptor_265	Offsite Worker	372941	755442	372941, 755442
Receptor_266	Offsite Worker	372913	755342	372913, 755342
Receptor_267	Offsite Worker	372817	755346	372817, 755346
Receptor_268	Offsite Worker	372720	755349	372720, 755349
Receptor_269	Offsite Worker	372624	755352	372624, 755352
Receptor_270	Offsite Worker	372527	755349	372527, 755349
Receptor_271	Offsite Worker	372431	755353	372431, 755353
Receptor_272	Offsite Worker	372334	755356	372334, 755356
Receptor_273	Offsite Worker	372237	755359	372237, 755359
Receptor_274	Offsite Worker	372141	755362	372141, 755362
Receptor_275	Offsite Worker	372044	755366	372044, 755366
Receptor_276	Offsite Worker	371948	755369	371948, 755369
Receptor_277	Offsite Worker	371851	755372	371851, 755372
Receptor_278	Offsite Worker	371755	755375	371755, 755375
Receptor_279	Offsite Worker	371658	755378	371658, 755378
Receptor_280	Offsite Worker	371562	755382	371562, 755382
Receptor_281	Offsite Worker	371465	755385	371465, 755385
Receptor_282	Offsite Worker	371368	755388	371368, 755388
Receptor_283	Offsite Worker	371272	755391	371272, 755391
Receptor_284	Offsite Worker	371175	755395	371175, 755395
Receptor_285	Offsite Worker	371079	755398	371079, 755398
Receptor_286	Offsite Worker	371042	755478	371042, 755478
Receptor_287	Offsite Worker	371009	755538	371009, 755538
Receptor_288	Offsite Worker	370975	755597	370975, 755597
Receptor_289	Offsite Worker	370925	755597	370925, 755597
Receptor_290	Offsite Worker	370860	755547	370860, 755547
Receptor_291	Offsite Worker	370796	755497	370796, 755497
Receptor_292	Offsite Worker	370733	755428	370733, 755428
Receptor_293	Offsite Worker	370634	755428	370634, 755428
Receptor_294	Offsite Worker	370536	755428	370536, 755428
Receptor_295	Offsite Worker	370437	755428	370437, 755428
Receptor_296	Offsite Worker	370338	755427	370338, 755427
Receptor_297	Residential	370239	755427	370239, 755427
Receptor_298	Residential	370138	755427	370138, 755427
Receptor_299	Residential	370040	755427	370040, 755427
Receptor_300	Residential	369941	755426	369941, 755426
Receptor_301	Residential	369842	755426	369842, 755426

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

MSC North Project Draft EIR
Operational Dispersion Receptor Locations

Receptor ID	Type	UTM (meters)		
		X	Y¹	Coordinates
Receptor_302	School	369741	755435	369741, 755435
Receptor_303	School	369643	755434	369643, 755434
Receptor_304	Residential	369544	755434	369544, 755434
Receptor_305	Residential	369445	755434	369445, 755434
Receptor_306	Residential	369346	755434	369346, 755434
Receptor_307	Offsite Worker	369249	755442	369249, 755442
Receptor_308	Offsite Worker	369151	755442	369151, 755442
Receptor_309	Offsite Worker	369052	755442	369052, 755442
Receptor_310	Residential	368953	755441	368953, 755441
Receptor_311	Residential	368854	755441	368854, 755441
Receptor_312	Residential	368755	755441	368755, 755441
Receptor_313	Residential	368657	755441	368657, 755441
Receptor_314	Residential	368558	755440	368558, 755440
Receptor_315	Residential	368459	755440	368459, 755440
Receptor_316	Residential	368360	755440	368360, 755440
Receptor_317	Residential	368262	755439	368262, 755439
Receptor_318	Residential	368186	755427	368186, 755427
Receptor_319	Residential	368111	755414	368111, 755414
Receptor_320	Offsite Worker	368035	755402	368035, 755402
Receptor_321	Offsite Worker	367960	755389	367960, 755389
Receptor_322	Offsite Worker	367863	755390	367863, 755390
Receptor_323	Offsite Worker	367766	755392	367766, 755392
Receptor_324	Offsite Worker	367669	755393	367669, 755393
Receptor_325	Offsite Worker	367572	755394	367572, 755394
Receptor_326	Offsite Worker	367475	755395	367475, 755395
Receptor_327	On-Site Occupational	370403	756882	370403, 756882

Note:

¹ 3,000,000 m should be added to Y (m) location values to get full UTM Northing (m) coordinate in 1984 WGS.

Attachment B.5

Operations – Localized Significance Thresholds (LST) Dispersion Modeling

- Output Files Summaries
 - CO
 - NO₂
 - SO₂
 - PM₁₀
 - PM_{2.5}

MSC North Project Draft EIR
Operational Dispersion: CO 1-Hr

Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?	Project		Total	Threshold	Exceeds?		
	Baseline	Project	Project	Increase	Ambient				Increase	Ambient					
Receptor_1	1,783	1,361	1,536	(246)	4,104	4,104	23,000	No	175	4,104	4,279	23,000	No		
Receptor_2	1,719	1,399	1,613	(106)	4,104	4,104	23,000	No	214	4,104	4,318	23,000	No		
Receptor_3	1,676	1,413	1,660	(16)	4,104	4,104	23,000	No	247	4,104	4,351	23,000	No		
Receptor_4	1,643	1,328	1,582	(61)	4,104	4,104	23,000	No	254	4,104	4,358	23,000	No		
Receptor_5	1,622	1,298	1,561	(61)	4,104	4,104	23,000	No	263	4,104	4,367	23,000	No		
Receptor_6	1,605	1,347	1,651	46	4,104	4,150	23,000	No	304	4,104	4,408	23,000	No		
Receptor_7	1,730	1,437	1,629	(101)	4,104	4,104	23,000	No	192	4,104	4,296	23,000	No		
Receptor_8	1,746	1,464	1,606	(141)	4,104	4,104	23,000	No	142	4,104	4,246	23,000	No		
Receptor_9	1,643	1,386	1,676	33	4,104	4,137	23,000	No	290	4,104	4,394	23,000	No		
Receptor_10	1,450	1,395	1,651	202	4,104	4,306	23,000	No	256	4,104	4,360	23,000	No		
Receptor_11	1,443	1,371	1,548	105	4,104	4,209	23,000	No	178	4,104	4,282	23,000	No		
Receptor_12	1,541	1,441	1,562	21	4,104	4,125	23,000	No	121	4,104	4,225	23,000	No		
Receptor_13	1,585	1,455	1,553	(33)	4,104	4,104	23,000	No	98	4,104	4,202	23,000	No		
Receptor_14	1,566	1,461	1,488	(78)	4,104	4,104	23,000	No	27	4,104	4,131	23,000	No		
Receptor_15	1,543	1,393	1,388	(155)	4,104	4,104	23,000	No	(5)	4,104	4,104	23,000	No		
Receptor_16	1,565	1,428	1,341	(223)	4,104	4,104	23,000	No	(86)	4,104	4,104	23,000	No		
Receptor_17	1,459	1,477	1,364	(95)	4,104	4,104	23,000	No	(114)	4,104	4,104	23,000	No		
Receptor_18	1,337	1,503	1,375	38	4,104	4,142	23,000	No	(127)	4,104	4,104	23,000	No		
Receptor_19	1,369	1,418	1,372	3	4,104	4,107	23,000	No	(46)	4,104	4,104	23,000	No		
Receptor_20	1,409	1,428	1,382	(27)	4,104	4,104	23,000	No	(47)	4,104	4,104	23,000	No		
Receptor_21	1,431	1,522	1,461	30	4,104	4,134	23,000	No	(61)	4,104	4,104	23,000	No		
Receptor_22	1,472	1,548	1,507	35	4,104	4,139	23,000	No	(40)	4,104	4,104	23,000	No		
Receptor_23	1,441	1,540	1,479	38	4,104	4,142	23,000	No	(61)	4,104	4,104	23,000	No		
Receptor_24	1,467	1,436	1,392	(74)	4,104	4,104	23,000	No	(43)	4,104	4,104	23,000	No		
Receptor_25	1,495	1,441	1,427	(69)	4,104	4,104	23,000	No	(14)	4,104	4,104	23,000	No		
Receptor_26	1,560	1,486	1,456	(103)	4,104	4,104	23,000	No	(29)	4,104	4,104	23,000	No		
Receptor_27	1,600	1,509	1,488	(112)	4,104	4,104	23,000	No	(21)	4,104	4,104	23,000	No		
Receptor_28	1,589	1,478	1,523	(66)	4,104	4,104	23,000	No	45	4,104	4,149	23,000	No		
Receptor_29	1,624	1,516	1,537	(87)	4,104	4,104	23,000	No	21	4,104	4,125	23,000	No		
Receptor_30	1,656	1,552	1,553	(102)	4,104	4,104	23,000	No	1	4,104	4,105	23,000	No		
Receptor_31	1,683	1,584	1,568	(115)	4,104	4,104	23,000	No	(15)	4,104	4,104	23,000	No		
Receptor_32	1,688	1,564	1,657	(31)	4,104	4,104	23,000	No	93	4,104	4,197	23,000	No		
Receptor_33	1,723	1,589	1,685	(38)	4,104	4,104	23,000	No	97	4,104	4,201	23,000	No		
Receptor_34	1,759	1,622	1,714	(45)	4,104	4,104	23,000	No	92	4,104	4,196	23,000	No		
Receptor_35	1,829	1,734	1,812	(17)	4,104	4,104	23,000	No	78	4,104	4,182	23,000	No		
Receptor_36	1,957	1,962	1,903	(55)	4,104	4,104	23,000	No	(59)	4,104	4,104	23,000	No		
Receptor_37	2,056	2,176	1,965	(91)	4,104	4,104	23,000	No	(211)	4,104	4,104	23,000	No		
Receptor_38	2,098	2,335	1,976	(122)	4,104	4,104	23,000	No	(360)	4,104	4,104	23,000	No		
Receptor_39	2,073	2,404	1,928	(145)	4,104	4,104	23,000	No	(476)	4,104	4,104	23,000	No		
Receptor_40	2,166	2,498	2,021	(146)	4,104	4,104	23,000	No	(477)	4,104	4,104	23,000	No		
Receptor_41	2,181	2,549	2,023	(158)	4,104	4,104	23,000	No	(526)	4,104	4,104	23,000	No		
Receptor_42	2,186	2,585	2,075	(111)	4,104	4,104	23,000	No	(510)	4,104	4,104	23,000	No		
Receptor_43	2,155	2,475	2,043	(112)	4,104	4,104	23,000	No	(432)	4,104	4,104	23,000	No		
Receptor_44	2,238	2,375	2,026	(212)	4,104	4,104	23,000	No	(348)	4,104	4,104	23,000	No		
Receptor_45	2,303	2,285	1,983	(320)	4,104	4,104	23,000	No	(302)	4,104	4,104	23,000	No		
Receptor_46	2,337	2,498	2,111	(226)	4,104	4,104	23,000	No	(387)	4,104	4,104	23,000	No		
Receptor_47	2,366	2,735	2,231	(135)	4,104	4,104	23,000	No	(505)	4,104	4,104	23,000	No		
Receptor_48	2,425	2,610	2,188	(237)	4,104	4,104	23,000	No	(422)	4,104	4,104	23,000	No		
Receptor_49	2,468	2,756	2,269	(199)	4,104	4,104	23,000	No	(487)	4,104	4,104	23,000	No		
Receptor_50	2,579	2,740	2,282	(297)	4,104	4,104	23,000	No	(459)	4,104	4,104	23,000	No		
Receptor_51	2,644	2,544	2,148	(496)	4,104	4,104	23,000	No	(396)	4,104	4,104	23,000	No		
Receptor_52	2,642	2,460	2,030	(611)	4,104	4,104	23,000	No	(429)	4,104	4,104	23,000	No		
Receptor_53	2,548	2,294	1,889	(660)	4,104	4,104	23,000	No	(406)	4,104	4,104	23,000	No		
Receptor_54	2,416	2,108	1,754	(662)	4,104	4,104	23,000	No	(354)	4,104	4,104	23,000	No		
Receptor_55	2,340	2,035	1,697	(643)	4,104	4,104	23,000	No	(338)	4,104	4,104	23,000	No		
Receptor_56	2,174	1,872	1,723	(451)	4,104	4,104	23,000	No	(149)	4,104	4,104	23,000	No		
Receptor_57	2,217	1,910	1,823	(393)	4,104	4,104	23,000	No	(87)	4,104	4,104	23,000	No		
Receptor_58	2,258	1,949	1,922	(336)	4,104	4,104	23,000	No	(27)	4,104	4,104	23,000	No		
Receptor_59	2,504	2,187	1,816	(688)	4,104	4,104	23,000	No	(371)	4,104	4,104	23,000	No		
Receptor_60	2,555	2,231	2,001	(554)	4,104	4,104	23,000	No	(230)	4,104	4,104	23,000	No		
Receptor_61	2,608	2,278	2,169	(439)	4,104	4,104	23,000	No	(109)	4,104	4,104	23,000	No		
Receptor_62	2,658	2,323	2,305	(354)	4,104	4,104	23,000	No	(18)	4,104	4,104	23,000	No		
Receptor_63	2,708	2,367	2,396	(312)	4,104	4,104	23,000	No	29	4,104	4,133	23,000	No		
Receptor_64	2,912	2,411	2,446	(466)	4,104	4,104	23,000	No	35	4,104	4,139	23,000	No		
Receptor_65	3,102	2,381	2,540	(561)	4,104	4,104	23,000	No	159	4,104	4,263	23,000	No		
Receptor_66	3,262	2,479	2,571	(691)	4,104	4,104	23,000	No	91	4,104	4,195	23,000	No		
Receptor_67	3,379	2,548	2,691	(688)	4,104	4,104	23,000	No	143	4,104	4,247	23,000	No		
Receptor_68	3,420	2,580	2,909	(510)	4,104	4,104	23,000	No	329	4,104	4,433	23,000	No		
Receptor_69	3,627	2,720	3,178	(448)	4,104	4,104	23,000	No	458	4,104	4,562	23,000	No		
Receptor_70	3,338	2,549	3,237	(101)	4,104	4,104	23,000	No	688	4,104	4,792	23,000	No		
Receptor_71	2,992	2,422	3,025	33	4,104	4,137	23,000	No	603	4,104	4,707	23,000	No		
Receptor_72	3,011	2,466	2,554	(457)	4,104	4,104	23,000	No	88	4,104	4,192	23,000	No		
Receptor_73	2,989	2,483	2,094	(895)	4,104	4,104	23,000	No	(389)	4,104	4,104	23,000	No		
Receptor_74	3,164	2,410	2,122	(1,042)	4,104	4,104	23,000	No	(288)	4,104	4,104	23,000	No		
Receptor_75	3,359	2,564	1,998	(1,360)	4,104	4,104	23,000	No	(565)	4,104	4,104	23,000	No		
Receptor_76	3,617	2,769	1,974	(1,643)	4,104	4,104	23,000	No	(795)	4,104	4,104	23,000	No</		

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Max Concentrations (ug/m3)				2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
Receptor ID	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?	Project		Total	Threshold	Exceeds?
	Baseline	Project	Project	Increase	Ambient				Increase	Ambient			
Receptor_86	2,934	2,552	1,629	(1,305)	4,104	4,104	23,000	No	(923)	4,104	4,104	23,000	No
Receptor_87	2,693	2,382	1,567	(1,126)	4,104	4,104	23,000	No	(815)	4,104	4,104	23,000	No
Receptor_88	2,394	2,210	1,495	(899)	4,104	4,104	23,000	No	(715)	4,104	4,104	23,000	No
Receptor_89	2,243	2,017	1,411	(832)	4,104	4,104	23,000	No	(606)	4,104	4,104	23,000	No
Receptor_90	2,127	1,915	1,353	(774)	4,104	4,104	23,000	No	(562)	4,104	4,104	23,000	No
Receptor_91	2,023	1,827	1,300	(723)	4,104	4,104	23,000	No	(527)	4,104	4,104	23,000	No
Receptor_92	1,929	1,749	1,251	(678)	4,104	4,104	23,000	No	(498)	4,104	4,104	23,000	No
Receptor_93	2,125	1,803	1,261	(864)	4,104	4,104	23,000	No	(543)	4,104	4,104	23,000	No
Receptor_94	2,171	1,815	1,278	(893)	4,104	4,104	23,000	No	(537)	4,104	4,104	23,000	No
Receptor_95	2,071	1,790	1,291	(780)	4,104	4,104	23,000	No	(499)	4,104	4,104	23,000	No
Receptor_96	2,004	1,742	1,309	(695)	4,104	4,104	23,000	No	(433)	4,104	4,104	23,000	No
Receptor_97	1,909	1,674	1,297	(612)	4,104	4,104	23,000	No	(377)	4,104	4,104	23,000	No
Receptor_98	2,026	1,755	1,356	(670)	4,104	4,104	23,000	No	(399)	4,104	4,104	23,000	No
Receptor_99	2,155	1,843	1,427	(728)	4,104	4,104	23,000	No	(416)	4,104	4,104	23,000	No
Receptor_100	2,287	1,941	1,506	(780)	4,104	4,104	23,000	No	(434)	4,104	4,104	23,000	No
Receptor_101	2,151	1,840	1,516	(634)	4,104	4,104	23,000	No	(323)	4,104	4,104	23,000	No
Receptor_102	1,944	1,711	1,602	(342)	4,104	4,104	23,000	No	(108)	4,104	4,104	23,000	No
Receptor_103	1,814	1,637	1,664	(151)	4,104	4,104	23,000	No	26	4,104	4,130	23,000	No
Receptor_104	1,863	1,675	1,693	(170)	4,104	4,104	23,000	No	18	4,104	4,122	23,000	No
Receptor_105	1,741	1,691	1,691	(50)	4,104	4,104	23,000	No	(0)	4,104	4,104	23,000	No
Receptor_106	1,856	1,741	1,745	(111)	4,104	4,104	23,000	No	4	4,104	4,108	23,000	No
Receptor_107	1,979	1,787	1,800	(180)	4,104	4,104	23,000	No	12	4,104	4,116	23,000	No
Receptor_108	1,868	1,744	1,770	(97)	4,104	4,104	23,000	No	26	4,104	4,130	23,000	No
Receptor_109	1,831	1,685	1,719	(111)	4,104	4,104	23,000	No	34	4,104	4,138	23,000	No
Receptor_110	1,805	1,624	1,675	(130)	4,104	4,104	23,000	No	51	4,104	4,155	23,000	No
Receptor_111	1,688	1,593	1,626	(61)	4,104	4,104	23,000	No	33	4,104	4,137	23,000	No
Receptor_112	1,741	1,528	1,612	(129)	4,104	4,104	23,000	No	83	4,104	4,187	23,000	No
Receptor_113	1,769	1,492	1,612	(157)	4,104	4,104	23,000	No	120	4,104	4,224	23,000	No
Receptor_114	1,773	1,538	1,610	(164)	4,104	4,104	23,000	No	72	4,104	4,176	23,000	No
Receptor_115	1,727	1,610	1,594	(133)	4,104	4,104	23,000	No	(15)	4,104	4,104	23,000	No
Receptor_116	1,697	1,698	1,568	(129)	4,104	4,104	23,000	No	(130)	4,104	4,104	23,000	No
Receptor_117	1,759	1,885	1,628	(131)	4,104	4,104	23,000	No	(257)	4,104	4,104	23,000	No
Receptor_118	1,849	2,071	1,698	(151)	4,104	4,104	23,000	No	(373)	4,104	4,104	23,000	No
Receptor_119	1,983	2,252	1,769	(213)	4,104	4,104	23,000	No	(483)	4,104	4,104	23,000	No
Receptor_120	2,145	2,418	1,914	(232)	4,104	4,104	23,000	No	(504)	4,104	4,104	23,000	No
Receptor_121	2,277	2,458	2,041	(236)	4,104	4,104	23,000	No	(418)	4,104	4,104	23,000	No
Receptor_122	2,394	2,408	2,116	(278)	4,104	4,104	23,000	No	(292)	4,104	4,104	23,000	No
Receptor_123	2,329	2,237	2,035	(294)	4,104	4,104	23,000	No	(202)	4,104	4,104	23,000	No
Receptor_124	2,168	2,055	1,924	(244)	4,104	4,104	23,000	No	(131)	4,104	4,104	23,000	No
Receptor_125	2,171	2,014	2,004	(168)	4,104	4,104	23,000	No	(10)	4,104	4,104	23,000	No
Receptor_126	2,074	2,035	2,017	(57)	4,104	4,104	23,000	No	(18)	4,104	4,104	23,000	No
Receptor_127	1,986	1,767	1,772	(214)	4,104	4,104	23,000	No	4	4,104	4,108	23,000	No
Receptor_128	1,889	1,742	1,675	(214)	4,104	4,104	23,000	No	(67)	4,104	4,104	23,000	No
Receptor_129	1,823	1,840	1,710	(113)	4,104	4,104	23,000	No	(129)	4,104	4,104	23,000	No
Receptor_130	1,791	1,698	1,622	(169)	4,104	4,104	23,000	No	(76)	4,104	4,104	23,000	No
Receptor_131	1,739	1,575	1,535	(203)	4,104	4,104	23,000	No	(40)	4,104	4,104	23,000	No
Receptor_132	1,653	1,497	1,466	(187)	4,104	4,104	23,000	No	(30)	4,104	4,104	23,000	No
Receptor_133	1,577	1,428	1,405	(171)	4,104	4,104	23,000	No	(22)	4,104	4,104	23,000	No
Receptor_134	1,509	1,367	1,351	(158)	4,104	4,104	23,000	No	(16)	4,104	4,104	23,000	No
Receptor_135	1,448	1,312	1,301	(146)	4,104	4,104	23,000	No	(10)	4,104	4,104	23,000	No
Receptor_136	1,392	1,262	1,255	(136)	4,104	4,104	23,000	No	(6)	4,104	4,104	23,000	No
Receptor_137	1,341	1,217	1,213	(127)	4,104	4,104	23,000	No	(3)	4,104	4,104	23,000	No
Receptor_138	1,318	1,219	1,208	(111)	4,104	4,104	23,000	No	(11)	4,104	4,104	23,000	No
Receptor_139	1,304	1,290	1,291	(13)	4,104	4,104	23,000	No	1	4,104	4,105	23,000	No
Receptor_140	1,301	1,300	1,292	(8)	4,104	4,104	23,000	No	(8)	4,104	4,104	23,000	No
Receptor_141	1,311	1,315	1,296	(14)	4,104	4,104	23,000	No	(19)	4,104	4,104	23,000	No
Receptor_142	1,266	1,265	1,245	(21)	4,104	4,104	23,000	No	(19)	4,104	4,104	23,000	No
Receptor_143	1,205	1,172	1,326	121	4,104	4,225	23,000	No	153	4,104	4,257	23,000	No
Receptor_144	1,254	1,207	1,506	252	4,104	4,356	23,000	No	300	4,104	4,404	23,000	No
Receptor_145	1,317	1,254	1,623	306	4,104	4,410	23,000	No	369	4,104	4,473	23,000	No
Receptor_146	1,288	1,236	1,576	288	4,104	4,392	23,000	No	339	4,104	4,443	23,000	No
Receptor_147	1,264	1,223	1,533	270	4,104	4,374	23,000	No	310	4,104	4,414	23,000	No
Receptor_148	1,265	1,255	1,497	232	4,104	4,336	23,000	No	242	4,104	4,346	23,000	No
Receptor_149	1,557	1,320	1,450	(106)	4,104	4,104	23,000	No	130	4,104	4,234	23,000	No
Receptor_150	1,810	1,352	1,372	(438)	4,104	4,104	23,000	No	20	4,104	4,124	23,000	No
Receptor_151	1,892	1,438	1,573	(318)	4,104	4,104	23,000	No	135	4,104	4,239	23,000	No
Receptor_152	1,941	1,491	1,620	(321)	4,104	4,104	23,000	No	129	4,104	4,233	23,000	No
Receptor_153	1,756	1,480	1,483	(273)	4,104	4,104	23,000	No	4	4,104	4,108	23,000	No
Receptor_154	1,882	1,535	1,579	(303)	4,104	4,104	23,000	No	45	4,104	4,149	23,000	No
Receptor_155	2,025	1,575	1,684	(341)	4,104	4,104	23,000	No	108	4,104	4,212	23,000	No
Receptor_156	2,065	1,545	1,715	(350)	4,104	4,104	23,000	No	170	4,104	4,274	23,000	No
Receptor_157	2,150	1,586	1,784	(366)	4,104	4,104	23,000	No	198	4,104	4,302	23,000	No
Receptor_158	2,114	1,651	1,752	(362)	4,104	4,104	23,000	No	101	4,104	4,205	23,000	No
Receptor_159	2,226	1,721	1,835	(391)	4,104	4,104	23,000	No	114	4,104	4,218	23,000	No
Receptor_160	2,339	1,786	1,918	(421)	4,104	4,104	23,000	No	132	4,104	4,236	23,000	No
Receptor_161	2,482	1,859	2,024										

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	3,827	3,137	2,831	(996)	4,104	4,104	23,000	No	(306)	4,104	4,104	23,000	No
Receptor_172	3,574	3,168	2,802	(772)	4,104	4,104	23,000	No	(366)	4,104	4,104	23,000	No
Receptor_173	2,728	2,622	2,268	(460)	4,104	4,104	23,000	No	(355)	4,104	4,104	23,000	No
Receptor_174	2,677	2,559	2,193	(483)	4,104	4,104	23,000	No	(366)	4,104	4,104	23,000	No
Receptor_175	2,604	2,468	2,119	(485)	4,104	4,104	23,000	No	(348)	4,104	4,104	23,000	No
Receptor_176	2,527	2,376	2,027	(500)	4,104	4,104	23,000	No	(349)	4,104	4,104	23,000	No
Receptor_177	2,446	2,285	1,991	(455)	4,104	4,104	23,000	No	(294)	4,104	4,104	23,000	No
Receptor_178	2,364	2,196	2,014	(350)	4,104	4,104	23,000	No	(182)	4,104	4,104	23,000	No
Receptor_179	2,325	2,166	1,993	(331)	4,104	4,104	23,000	No	(173)	4,104	4,104	23,000	No
Receptor_180	2,305	2,100	2,029	(276)	4,104	4,104	23,000	No	(71)	4,104	4,104	23,000	No
Receptor_181	2,215	2,021	2,071	(145)	4,104	4,104	23,000	No	50	4,104	4,154	23,000	No
Receptor_182	2,093	1,919	2,086	(7)	4,104	4,104	23,000	No	167	4,104	4,271	23,000	No
Receptor_183	1,947	1,801	2,091	144	4,104	4,248	23,000	No	290	4,104	4,394	23,000	No
Receptor_184	1,866	1,702	2,080	214	4,104	4,318	23,000	No	378	4,104	4,482	23,000	No
Receptor_185	1,879	1,631	2,046	167	4,104	4,271	23,000	No	416	4,104	4,520	23,000	No
Receptor_186	1,875	1,561	1,987	112	4,104	4,216	23,000	No	426	4,104	4,530	23,000	No
Receptor_187	1,855	1,495	1,907	52	4,104	4,156	23,000	No	413	4,104	4,517	23,000	No
Receptor_188	1,823	1,432	1,813	(10)	4,104	4,104	23,000	No	381	4,104	4,485	23,000	No
Receptor_189	1,790	1,432	1,713	(77)	4,104	4,104	23,000	No	281	4,104	4,385	23,000	No
Receptor_190	1,784	1,421	1,615	(169)	4,104	4,104	23,000	No	194	4,104	4,298	23,000	No
Receptor_191	1,681	1,292	1,646	(35)	4,104	4,104	23,000	No	354	4,104	4,458	23,000	No
Receptor_192	1,594	1,241	1,659	64	4,104	4,168	23,000	No	418	4,104	4,522	23,000	No
Receptor_193	1,474	1,180	1,623	150	4,104	4,254	23,000	No	443	4,104	4,547	23,000	No
Receptor_194	1,334	1,217	1,547	213	4,104	4,317	23,000	No	330	4,104	4,434	23,000	No
Receptor_195	1,485	1,270	1,421	(64)	4,104	4,104	23,000	No	150	4,104	4,254	23,000	No
Receptor_196	1,567	1,268	1,330	(237)	4,104	4,104	23,000	No	63	4,104	4,167	23,000	No
Receptor_197	1,550	1,232	1,315	(235)	4,104	4,104	23,000	No	83	4,104	4,187	23,000	No
Receptor_198	1,516	1,175	1,225	(291)	4,104	4,104	23,000	No	49	4,104	4,153	23,000	No
Receptor_199	1,447	1,114	1,118	(329)	4,104	4,104	23,000	No	4	4,104	4,108	23,000	No
Receptor_200	1,349	1,053	1,095	(254)	4,104	4,104	23,000	No	42	4,104	4,146	23,000	No
Receptor_201	1,202	1,069	1,168	(34)	4,104	4,104	23,000	No	98	4,104	4,202	23,000	No
Receptor_202	1,167	1,048	1,147	(20)	4,104	4,104	23,000	No	99	4,104	4,203	23,000	No
Receptor_203	1,158	1,013	1,100	(58)	4,104	4,104	23,000	No	87	4,104	4,191	23,000	No
Receptor_204	1,148	1,012	1,057	(91)	4,104	4,104	23,000	No	45	4,104	4,149	23,000	No
Receptor_205	1,139	1,014	1,019	(119)	4,104	4,104	23,000	No	6	4,104	4,110	23,000	No
Receptor_206	1,126	1,003	1,003	(123)	4,104	4,104	23,000	No	(0)	4,104	4,104	23,000	No
Receptor_207	1,111	993	981	(131)	4,104	4,104	23,000	No	(12)	4,104	4,104	23,000	No
Receptor_208	1,098	977	973	(125)	4,104	4,104	23,000	No	(4)	4,104	4,104	23,000	No
Receptor_209	1,140	959	1,037	(103)	4,104	4,104	23,000	No	78	4,104	4,182	23,000	No
Receptor_210	1,195	925	1,134	(61)	4,104	4,104	23,000	No	210	4,104	4,314	23,000	No
Receptor_211	1,190	938	1,209	19	4,104	4,123	23,000	No	271	4,104	4,375	23,000	No
Receptor_212	1,197	977	1,248	51	4,104	4,155	23,000	No	271	4,104	4,375	23,000	No
Receptor_213	1,258	981	1,247	(12)	4,104	4,104	23,000	No	266	4,104	4,370	23,000	No
Receptor_214	1,327	1,022	1,215	(112)	4,104	4,104	23,000	No	193	4,104	4,297	23,000	No
Receptor_215	1,386	1,077	1,198	(188)	4,104	4,104	23,000	No	122	4,104	4,226	23,000	No
Receptor_216	1,458	1,236	1,355	(103)	4,104	4,104	23,000	No	120	4,104	4,224	23,000	No
Receptor_217	1,485	1,217	1,334	(151)	4,104	4,104	23,000	No	117	4,104	4,221	23,000	No
Receptor_218	1,496	1,198	1,312	(184)	4,104	4,104	23,000	No	114	4,104	4,218	23,000	No
Receptor_219	1,565	1,313	1,440	(125)	4,104	4,104	23,000	No	127	4,104	4,231	23,000	No
Receptor_220	1,622	1,397	1,533	(89)	4,104	4,104	23,000	No	136	4,104	4,240	23,000	No
Receptor_221	1,659	1,426	1,564	(95)	4,104	4,104	23,000	No	139	4,104	4,243	23,000	No
Receptor_222	1,688	1,422	1,559	(130)	4,104	4,104	23,000	No	136	4,104	4,240	23,000	No
Receptor_223	1,716	1,415	1,548	(168)	4,104	4,104	23,000	No	133	4,104	4,237	23,000	No
Receptor_224	1,739	1,399	1,528	(211)	4,104	4,104	23,000	No	129	4,104	4,233	23,000	No
Receptor_225	1,759	1,397	1,560	(200)	4,104	4,104	23,000	No	163	4,104	4,267	23,000	No
Receptor_226	1,669	1,295	1,610	(59)	4,104	4,104	23,000	No	315	4,104	4,419	23,000	No
Receptor_227	1,887	1,611	1,765	(122)	4,104	4,104	23,000	No	154	4,104	4,258	23,000	No
Receptor_228	1,949	1,789	1,973	25	4,104	4,129	23,000	No	184	4,104	4,288	23,000	No
Receptor_229	2,116	1,919	2,118	2	4,104	4,106	23,000	No	199	4,104	4,303	23,000	No
Receptor_230	2,155	1,912	2,104	(51)	4,104	4,104	23,000	No	192	4,104	4,296	23,000	No
Receptor_231	2,186	1,909	2,094	(92)	4,104	4,104	23,000	No	185	4,104	4,289	23,000	No
Receptor_232	2,503	2,210	2,256	(247)	4,104	4,104	23,000	No	46	4,104	4,150	23,000	No
Receptor_233	2,943	2,652	2,530	(413)	4,104	4,104	23,000	No	(122)	4,104	4,104	23,000	No
Receptor_234	3,488	3,279	3,030	(458)	4,104	4,104	23,000	No	(249)	4,104	4,104	23,000	No
Receptor_235	3,625	3,312	3,000	(625)	4,104	4,104	23,000	No	(312)	4,104	4,104	23,000	No
Receptor_236	4,547	4,668	4,642	95	4,104	4,199	23,000	No	(26)	4,104	4,104	23,000	No
Receptor_237	4,094	4,364	4,289	195	4,104	4,299	23,000	No	(74)	4,104	4,104	23,000	No
Receptor_238	3,794	4,015	3,943	149	4,104	4,253	23,000	No	(72)	4,104	4,104	23,000	No
Receptor_239	3,545	3,684	3,615	70	4,104	4,174	23,000	No	(69)	4,104	4,104	23,000	No
Receptor_240	3,430	3,519	3,348	(82)	4,104	4,104	23,000	No	(172)	4,104	4,104	23,000	No
Receptor_241	3,037	3,160	2,898	(138)	4,104	4,104	23,000	No	(262)	4,104	4,104	23,000	No
Receptor_242	2,728	2,886	2,554	(174)	4,104	4,104	23,000	No	(332)	4,104	4,104	23,000	No
Receptor_243	2,479	2,669	2,334	(145)	4,104	4,104	23,000	No	(335)	4,104	4,104	23,000	No
Receptor_244	2,272	2,490	2,177	(94)	4,104	4,104	23,000	No	(313)	4,104	4,104	23,000	No
Receptor_245	2,032	2,278	1,990	(42)	4,104	4,104	23,000	No	(288)	4,104	4,104	23,000	No
Receptor_246	2,441	2,413	2,224	(217)	4,104	4,104	23,000	No	(189)	4,104	4,104	23,000	No
Receptor_247	2,516	2,358	2,225	(291)	4,104	4,104	23,000	No	(133)	4,104	4,104	23,000	No
Receptor_248	2,277	2,158	2,005	(272)	4,104	4,104	23,000	No	(153)	4,104	4,104	23,000	No
Receptor_249	1,906	1,839	1,703	(203)	4,104	4,104	23,000	No	(136)	4,104	4,104	23,000	No
Receptor_250	1,608	1,704	1,696	88	4,104	4,192	23,000	No	(9)	4,104	4,104	23,000	No
Receptor_251	1,597	1,633	1,675	77	4,104	4,181	23,000	No	42	4,104	4,146	23,000	No
Receptor_252	1,567	1,546	1,649	82	4,104	4,186	23,000	No	104	4,104	4,208	23,000	No
Receptor_253	1,597	1,563	1,679	82	4,104	4,186	23,000	No	116	4,104	4,220	23,000	No
Receptor_254	1,629	1,592	1,709	81	4,104	4,185	23,000	No	117	4,104	4,221	23,000	No
Receptor_255	1,667	1,623	1,744	77	4,104	4,181	23,000	No	121	4,104	4,225	23,000	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?		Project		Total	Threshold	Exceeds?	
	Baseline	Project	Project	Increase	Ambient					Increase	Ambient				
Receptor_256	1,683	1,675	1,774	91	4,104	4,195	23,000	No		99	4,104	4,203	23,000	No	
Receptor_257	1,726	1,752	1,795	69	4,104	4,173	23,000	No		43	4,104	4,147	23,000	No	
Receptor_258	1,755	1,776	1,832	77	4,104	4,181	23,000	No		55	4,104	4,159	23,000	No	
Receptor_259	1,718	1,701	1,813	95	4,104	4,199	23,000	No		112	4,104	4,216	23,000	No	
Receptor_260	1,704	1,645	1,771	67	4,104	4,171	23,000	No		125	4,104	4,229	23,000	No	
Receptor_261	1,738	1,668	1,797	59	4,104	4,163	23,000	No		129	4,104	4,233	23,000	No	
Receptor_262	1,779	1,723	1,826	47	4,104	4,151	23,000	No		103	4,104	4,207	23,000	No	
Receptor_263	1,793	1,786	1,710	(83)	4,104	4,104	23,000	No		(76)	4,104	4,104	23,000	No	
Receptor_264	1,752	1,748	1,583	(169)	4,104	4,104	23,000	No		(165)	4,104	4,104	23,000	No	
Receptor_265	1,658	1,635	1,492	(166)	4,104	4,104	23,000	No		(143)	4,104	4,104	23,000	No	
Receptor_266	1,486	1,506	1,386	(100)	4,104	4,104	23,000	No		(120)	4,104	4,104	23,000	No	
Receptor_267	1,493	1,569	1,385	(108)	4,104	4,104	23,000	No		(184)	4,104	4,104	23,000	No	
Receptor_268	1,521	1,627	1,377	(144)	4,104	4,104	23,000	No		(251)	4,104	4,104	23,000	No	
Receptor_269	1,544	1,670	1,381	(163)	4,104	4,104	23,000	No		(289)	4,104	4,104	23,000	No	
Receptor_270	1,601	1,697	1,414	(188)	4,104	4,104	23,000	No		(284)	4,104	4,104	23,000	No	
Receptor_271	1,655	1,723	1,451	(204)	4,104	4,104	23,000	No		(272)	4,104	4,104	23,000	No	
Receptor_272	1,705	1,746	1,492	(213)	4,104	4,104	23,000	No		(254)	4,104	4,104	23,000	No	
Receptor_273	1,748	1,761	1,532	(215)	4,104	4,104	23,000	No		(229)	4,104	4,104	23,000	No	
Receptor_274	1,822	1,767	1,568	(254)	4,104	4,104	23,000	No		(200)	4,104	4,104	23,000	No	
Receptor_275	1,935	1,765	1,597	(337)	4,104	4,104	23,000	No		(168)	4,104	4,104	23,000	No	
Receptor_276	2,041	1,753	1,621	(420)	4,104	4,104	23,000	No		(132)	4,104	4,104	23,000	No	
Receptor_277	2,140	1,754	1,641	(499)	4,104	4,104	23,000	No		(113)	4,104	4,104	23,000	No	
Receptor_278	2,230	1,751	1,665	(565)	4,104	4,104	23,000	No		(86)	4,104	4,104	23,000	No	
Receptor_279	2,317	1,831	1,693	(624)	4,104	4,104	23,000	No		(138)	4,104	4,104	23,000	No	
Receptor_280	2,401	1,934	1,731	(670)	4,104	4,104	23,000	No		(203)	4,104	4,104	23,000	No	
Receptor_281	2,459	2,059	1,791	(668)	4,104	4,104	23,000	No		(267)	4,104	4,104	23,000	No	
Receptor_282	2,491	2,177	1,887	(604)	4,104	4,104	23,000	No		(290)	4,104	4,104	23,000	No	
Receptor_283	2,513	2,306	1,997	(516)	4,104	4,104	23,000	No		(309)	4,104	4,104	23,000	No	
Receptor_284	2,499	2,393	2,117	(382)	4,104	4,104	23,000	No		(276)	4,104	4,104	23,000	No	
Receptor_285	2,509	2,471	2,233	(275)	4,104	4,104	23,000	No		(238)	4,104	4,104	23,000	No	
Receptor_286	2,635	2,564	2,320	(315)	4,104	4,104	23,000	No		(244)	4,104	4,104	23,000	No	
Receptor_287	2,752	2,644	2,321	(431)	4,104	4,104	23,000	No		(324)	4,104	4,104	23,000	No	
Receptor_288	2,881	2,730	2,283	(599)	4,104	4,104	23,000	No		(447)	4,104	4,104	23,000	No	
Receptor_289	2,902	2,819	2,448	(455)	4,104	4,104	23,000	No		(371)	4,104	4,104	23,000	No	
Receptor_290	2,840	2,796	2,745	(94)	4,104	4,104	23,000	No		(51)	4,104	4,104	23,000	No	
Receptor_291	2,875	2,795	2,703	(172)	4,104	4,104	23,000	No		(92)	4,104	4,104	23,000	No	
Receptor_292	2,900	2,799	2,837	(63)	4,104	4,104	23,000	No		38	4,104	4,142	23,000	No	
Receptor_293	3,038	2,847	2,883	(154)	4,104	4,104	23,000	No		37	4,104	4,141	23,000	No	
Receptor_294	3,329	2,879	2,699	(630)	4,104	4,104	23,000	No		(179)	4,104	4,104	23,000	No	
Receptor_295	3,558	3,007	2,530	(1,028)	4,104	4,104	23,000	No		(477)	4,104	4,104	23,000	No	
Receptor_296	3,666	3,009	2,457	(1,210)	4,104	4,104	23,000	No		(552)	4,104	4,104	23,000	No	
Receptor_297	3,508	2,832	2,295	(1,213)	4,104	4,104	23,000	No		(537)	4,104	4,104	23,000	No	
Receptor_298	2,935	2,929	2,287	(647)	4,104	4,104	23,000	No		(642)	4,104	4,104	23,000	No	
Receptor_299	2,946	3,174	2,270	(676)	4,104	4,104	23,000	No		(903)	4,104	4,104	23,000	No	
Receptor_300	2,754	3,061	2,024	(730)	4,104	4,104	23,000	No		(1,037)	4,104	4,104	23,000	No	
Receptor_301	2,755	2,532	2,067	(688)	4,104	4,104	23,000	No		(465)	4,104	4,104	23,000	No	
Receptor_302	2,976	2,717	2,184	(792)	4,104	4,104	23,000	No		(533)	4,104	4,104	23,000	No	
Receptor_303	3,117	2,697	2,232	(885)	4,104	4,104	23,000	No		(465)	4,104	4,104	23,000	No	
Receptor_304	2,915	2,406	2,113	(802)	4,104	4,104	23,000	No		(292)	4,104	4,104	23,000	No	
Receptor_305	2,819	2,324	1,996	(824)	4,104	4,104	23,000	No		(328)	4,104	4,104	23,000	No	
Receptor_306	2,739	2,389	1,994	(745)	4,104	4,104	23,000	No		(395)	4,104	4,104	23,000	No	
Receptor_307	2,502	2,376	2,121	(380)	4,104	4,104	23,000	No		(255)	4,104	4,104	23,000	No	
Receptor_308	2,554	2,211	2,241	(313)	4,104	4,104	23,000	No		30	4,104	4,134	23,000	No	
Receptor_309	2,517	2,160	2,380	(137)	4,104	4,104	23,000	No		220	4,104	4,324	23,000	No	
Receptor_310	2,399	2,045	2,369	(31)	4,104	4,104	23,000	No		323	4,104	4,427	23,000	No	
Receptor_311	2,381	1,933	2,389	8	4,104	4,112	23,000	No		456	4,104	4,560	23,000	No	
Receptor_312	2,362	1,841	2,134	(228)	4,104	4,104	23,000	No		292	4,104	4,396	23,000	No	
Receptor_313	2,305	1,832	1,868	(437)	4,104	4,104	23,000	No		36	4,104	4,140	23,000	No	
Receptor_314	2,301	1,845	1,758	(543)	4,104	4,104	23,000	No		(87)	4,104	4,104	23,000	No	
Receptor_315	2,251	1,847	1,741	(510)	4,104	4,104	23,000	No		(105)	4,104	4,104	23,000	No	
Receptor_316	2,164	1,843	1,711	(453)	4,104	4,104	23,000	No		(132)	4,104	4,104	23,000	No	
Receptor_317	2,110	1,806	1,680	(430)	4,104	4,104	23,000	No		(126)	4,104	4,104	23,000	No	
Receptor_318	2,042	1,753	1,672	(370)	4,104	4,104	23,000	No		(81)	4,104	4,104	23,000	No	
Receptor_319	1,969	1,696	1,656	(314)	4,104	4,104	23,000	No		(40)	4,104	4,104	23,000	No	
Receptor_320	1,893	1,635	1,634	(259)	4,104	4,104	23,000	No		(1)	4,104	4,104	23,000	No	
Receptor_321	1,852	1,572	1,605	(247)	4,104	4,104	23,000	No		32	4,104	4,136	23,000	No	
Receptor_322	1,881	1,477	1,572	(309)	4,104	4,104	23,000	No		95	4,104	4,199	23,000	No	
Receptor_323	1,895	1,442	1,548	(347)	4,104	4,104	23,000	No		106	4,104	4,210	23,000	No	
Receptor_324	1,890	1,435	1,574	(316)	4,104	4,104	23,000	No		139	4,104	4,243	23,000	No	
Receptor_325	1,868	1,417	1,580	(288)	4,104	4,104	23,000	No		163	4,104	4,267	23,000	No	
Receptor_326	1,832	1,393	1,566	(265)	4,104	4,104	23,000	No		173	4,104	4,277	23,000	No	
Receptor_327	2,704	2,596	2,075	(629)	4,104	4,104	23,000	No		(521)	4,104	4,104	23,000	No	
Maximum	4,547	4,668	4,642	306	4,104	4,410	23,000	No		688	4,104	4,792	23,000	No	

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Receptor_ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project	Ambient	Total	Threshold	Exceeds?	Project	Ambient	Total	Threshold	Exceeds?
	Baseline	Project	Project										
Receptor_1	395	424	501	106	2,884	2,991	10,000	No	77	2,884	2,961	10,000	No
Receptor_2	407	415	497	90	2,884	2,974	10,000	No	82	2,884	2,966	10,000	No
Receptor_3	443	449	538	95	2,884	2,979	10,000	No	88	2,884	2,973	10,000	No
Receptor_4	476	480	577	101	2,884	2,985	10,000	No	96	2,884	2,981	10,000	No
Receptor_5	502	490	609	107	2,884	2,991	10,000	No	119	2,884	3,003	10,000	No
Receptor_6	521	508	632	111	2,884	2,995	10,000	No	124	2,884	3,008	10,000	No
Receptor_7	529	520	641	112	2,884	2,996	10,000	No	122	2,884	3,006	10,000	No
Receptor_8	526	523	637	111	2,884	2,995	10,000	No	114	2,884	2,998	10,000	No
Receptor_9	515	521	621	106	2,884	2,990	10,000	No	101	2,884	2,985	10,000	No
Receptor_10	499	514	597	99	2,884	2,983	10,000	No	83	2,884	2,968	10,000	No
Receptor_11	480	505	568	88	2,884	2,972	10,000	No	63	2,884	2,947	10,000	No
Receptor_12	461	494	536	75	2,884	2,959	10,000	No	42	2,884	2,926	10,000	No
Receptor_13	445	482	509	64	2,884	2,948	10,000	No	26	2,884	2,910	10,000	No
Receptor_14	437	468	501	64	2,884	2,948	10,000	No	33	2,884	2,917	10,000	No
Receptor_15	437	473	492	55	2,884	2,939	10,000	No	20	2,884	2,904	10,000	No
Receptor_16	437	475	481	44	2,884	2,928	10,000	No	6	2,884	2,890	10,000	No
Receptor_17	438	475	468	30	2,884	2,914	10,000	No	(7)	2,884	2,884	10,000	No
Receptor_18	438	471	453	14	2,884	2,899	10,000	No	(18)	2,884	2,884	10,000	No
Receptor_19	436	462	435	(1)	2,884	2,884	10,000	No	(26)	2,884	2,884	10,000	No
Receptor_20	429	446	415	(14)	2,884	2,884	10,000	No	(31)	2,884	2,884	10,000	No
Receptor_21	415	424	392	(23)	2,884	2,884	10,000	No	(32)	2,884	2,884	10,000	No
Receptor_22	395	396	367	(27)	2,884	2,884	10,000	No	(28)	2,884	2,884	10,000	No
Receptor_23	367	361	354	(13)	2,884	2,884	10,000	No	(7)	2,884	2,884	10,000	No
Receptor_24	350	344	375	25	2,884	2,909	10,000	No	31	2,884	2,915	10,000	No
Receptor_25	343	336	393	50	2,884	2,934	10,000	No	57	2,884	2,941	10,000	No
Receptor_26	342	332	407	65	2,884	2,950	10,000	No	75	2,884	2,960	10,000	No
Receptor_27	357	348	418	61	2,884	2,945	10,000	No	70	2,884	2,954	10,000	No
Receptor_28	372	361	424	52	2,884	2,936	10,000	No	63	2,884	2,947	10,000	No
Receptor_29	377	366	432	55	2,884	2,940	10,000	No	66	2,884	2,950	10,000	No
Receptor_30	382	371	441	59	2,884	2,943	10,000	No	69	2,884	2,954	10,000	No
Receptor_31	387	376	449	62	2,884	2,946	10,000	No	73	2,884	2,957	10,000	No
Receptor_32	420	406	469	49	2,884	2,933	10,000	No	62	2,884	2,946	10,000	No
Receptor_33	430	416	479	50	2,884	2,934	10,000	No	63	2,884	2,947	10,000	No
Receptor_34	440	426	490	50	2,884	2,934	10,000	No	64	2,884	2,948	10,000	No
Receptor_35	472	457	511	40	2,884	2,924	10,000	No	54	2,884	2,938	10,000	No
Receptor_36	500	487	528	27	2,884	2,911	10,000	No	41	2,884	2,925	10,000	No
Receptor_37	524	514	539	14	2,884	2,898	10,000	No	25	2,884	2,909	10,000	No
Receptor_38	542	535	542	1	2,884	2,885	10,000	No	8	2,884	2,892	10,000	No
Receptor_39	550	548	538	(12)	2,884	2,884	10,000	No	(10)	2,884	2,884	10,000	No
Receptor_40	577	574	565	(12)	2,884	2,884	10,000	No	(9)	2,884	2,884	10,000	No
Receptor_41	591	591	573	(18)	2,884	2,884	10,000	No	(18)	2,884	2,884	10,000	No
Receptor_42	604	606	579	(25)	2,884	2,884	10,000	No	(27)	2,884	2,884	10,000	No
Receptor_43	583	588	551	(31)	2,884	2,884	10,000	No	(37)	2,884	2,884	10,000	No
Receptor_44	572	581	533	(39)	2,884	2,884	10,000	No	(48)	2,884	2,884	10,000	No
Receptor_45	555	566	516	(39)	2,884	2,884	10,000	No	(50)	2,884	2,884	10,000	No
Receptor_46	607	617	563	(44)	2,884	2,884	10,000	No	(54)	2,884	2,884	10,000	No
Receptor_47	658	666	618	(40)	2,884	2,884	10,000	No	(48)	2,884	2,884	10,000	No
Receptor_48	639	651	591	(49)	2,884	2,884	10,000	No	(60)	2,884	2,884	10,000	No
Receptor_49	673	684	625	(48)	2,884	2,884	10,000	No	(59)	2,884	2,884	10,000	No
Receptor_50	679	694	624	(56)	2,884	2,884	10,000	No	(70)	2,884	2,884	10,000	No
Receptor_51	628	644	577	(50)	2,884	2,884	10,000	No	(66)	2,884	2,884	10,000	No
Receptor_52	595	606	554	(41)	2,884	2,884	10,000	No	(52)	2,884	2,884	10,000	No
Receptor_53	580	587	518	(62)	2,884	2,884	10,000	No	(69)	2,884	2,884	10,000	No
Receptor_54	556	560	482	(74)	2,884	2,884	10,000	No	(78)	2,884	2,884	10,000	No
Receptor_55	540	542	466	(74)	2,884	2,884	10,000	No	(76)	2,884	2,884	10,000	No
Receptor_56	513	513	432	(81)	2,884	2,884	10,000	No	(81)	2,884	2,884	10,000	No
Receptor_57	524	525	439	(85)	2,884	2,884	10,000	No	(85)	2,884	2,884	10,000	No
Receptor_58	535	536	457	(78)	2,884	2,884	10,000	No	(79)	2,884	2,884	10,000	No
Receptor_59	579	583	496	(83)	2,884	2,884	10,000	No	(87)	2,884	2,884	10,000	No
Receptor_60	594	598	502	(92)	2,884	2,884	10,000	No	(96)	2,884	2,884	10,000	No
Receptor_61	609	613	526	(82)	2,884	2,884	10,000	No	(87)	2,884	2,884	10,000	No
Receptor_62	623	628	556	(67)	2,884	2,884	10,000	No	(72)	2,884	2,884	10,000	No
Receptor_63	637	641	600	(37)	2,884	2,884	10,000	No	(42)	2,884	2,884	10,000	No
Receptor_64	650	654	641	(10)	2,884	2,884	10,000	No	(13)	2,884	2,884	10,000	No
Receptor_65	646	640	663	17	2,884	2,902	10,000	No	23	2,884	2,908	10,000	No
Receptor_66	657	619	682	25	2,884	2,909	10,000	No	63	2,884	2,947	10,000	No
Receptor_67	701	649	751	50	2,884	2,934	10,000	No	102	2,884	2,986	10,000	No
Receptor_68	736	679	806	71	2,884	2,955	10,000	No	128	2,884	3,012	10,000	No
Receptor_69	796	737	865	69	2,884	2,953	10,000	No	128	2,884	3,013	10,000	No
Receptor_70	790	715	864	73	2,884	2,958	10,000	No	148	2,884	3,033	10,000	No
Receptor_71	770	692	834	64	2,884	2,949	10,000	No	142	2,884	3,026	10,000	No
Receptor_72	744	675	775	32	2,884	2,916	10,000	No	100	2,884	2,984	10,000	No
Receptor_73	735	669	716	(18)	2,884	2,884	10,000	No	47	2,884	2,931	10,000	No
Receptor_74	757	656	673	(84)	2,884	2,884	10,000	No	17	2,884	2,901	10,000	No
Receptor_75	789	673	647	(142)	2,884	2,884	10,000	No	(25)	2,884	2,884	10,000	No
Receptor_76	878	755	693	(185)	2,884	2,884	10,000	No	(61)	2,884	2,884	10,000	No
Receptor_77	881	759	684	(198)	2,884	2,884	10,000	No	(75)	2,884	2,884	10,000	No
Receptor_78	867	750	677	(190)	2,884	2,884	10,000	No	(73)	2,884	2,884	10,000	No
Receptor_79	929	810	719	(210)	2,884	2,884	10,000	No	(91)	2,884	2,884	10,000	No
Receptor_80	985	865	766	(219)	2,884	2,884	10,000	No	(98)	2,884	2,884	10,000	No
Receptor_81	1,031	909	820	(211)	2,884	2,884	10,000	No	(89)	2,884	2,884	10,000	No
Receptor_82	925	821	799	(126)	2,884	2,884	10,000	No	(22)	2,884	2,884	10,000	No
Receptor_83	834	750	777	(57)	2,884	2,884	10,000	No	27	2,884	2,911	10,000	No
Receptor_84	818	730	729	(89)	2,884	2,884	10,000	No	(1)	2,884	2,884	10,000	No
Receptor_85	796	705	683	(113)	2,884	2,884	10,000	No	(23)	2,884	2,884	10,000	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	766	673	641	(126)	2,884	2,884	10,000	No	(33)	2,884	2,884	10,000	No
Receptor_87	706	630	632	(73)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_88	645	586	624	(21)	2,884	2,884	10,000	No	38	2,884	2,922	10,000	No
Receptor_89	590	572	616	26	2,884	2,910	10,000	No	44	2,884	2,928	10,000	No
Receptor_90	550	543	586	36	2,884	2,920	10,000	No	43	2,884	2,927	10,000	No
Receptor_91	520	515	558	38	2,884	2,922	10,000	No	43	2,884	2,927	10,000	No
Receptor_92	496	491	532	36	2,884	2,920	10,000	No	42	2,884	2,926	10,000	No
Receptor_93	507	507	544	37	2,884	2,922	10,000	No	38	2,884	2,922	10,000	No
Receptor_94	529	526	555	26	2,884	2,910	10,000	No	28	2,884	2,913	10,000	No
Receptor_95	548	538	564	16	2,884	2,900	10,000	No	25	2,884	2,910	10,000	No
Receptor_96	560	544	570	9	2,884	2,893	10,000	No	26	2,884	2,910	10,000	No
Receptor_97	568	546	573	5	2,884	2,889	10,000	No	27	2,884	2,911	10,000	No
Receptor_98	608	581	605	(3)	2,884	2,884	10,000	No	23	2,884	2,908	10,000	No
Receptor_99	651	620	639	(12)	2,884	2,884	10,000	No	19	2,884	2,903	10,000	No
Receptor_100	698	663	676	(22)	2,884	2,884	10,000	No	13	2,884	2,897	10,000	No
Receptor_101	699	660	676	(23)	2,884	2,884	10,000	No	15	2,884	2,899	10,000	No
Receptor_102	690	655	669	(21)	2,884	2,884	10,000	No	14	2,884	2,898	10,000	No
Receptor_103	676	649	659	(17)	2,884	2,884	10,000	No	10	2,884	2,894	10,000	No
Receptor_104	664	644	648	(16)	2,884	2,884	10,000	No	5	2,884	2,889	10,000	No
Receptor_105	661	638	640	(22)	2,884	2,884	10,000	No	2	2,884	2,886	10,000	No
Receptor_106	687	663	663	(24)	2,884	2,884	10,000	No	0	2,884	2,884	10,000	No
Receptor_107	716	691	689	(26)	2,884	2,884	10,000	No	(2)	2,884	2,884	10,000	No
Receptor_108	715	680	680	(35)	2,884	2,884	10,000	No	0	2,884	2,885	10,000	No
Receptor_109	700	653	657	(43)	2,884	2,884	10,000	No	3	2,884	2,888	10,000	No
Receptor_110	680	624	630	(50)	2,884	2,884	10,000	No	6	2,884	2,890	10,000	No
Receptor_111	650	600	606	(44)	2,884	2,884	10,000	No	5	2,884	2,890	10,000	No
Receptor_112	634	581	595	(39)	2,884	2,884	10,000	No	14	2,884	2,898	10,000	No
Receptor_113	612	589	615	4	2,884	2,888	10,000	No	27	2,884	2,911	10,000	No
Receptor_114	628	591	627	(1)	2,884	2,884	10,000	No	36	2,884	2,921	10,000	No
Receptor_115	638	589	623	(15)	2,884	2,884	10,000	No	34	2,884	2,918	10,000	No
Receptor_116	637	585	603	(34)	2,884	2,884	10,000	No	18	2,884	2,902	10,000	No
Receptor_117	671	634	641	(30)	2,884	2,884	10,000	No	7	2,884	2,892	10,000	No
Receptor_118	710	688	682	(28)	2,884	2,884	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_119	758	743	727	(31)	2,884	2,884	10,000	No	(16)	2,884	2,884	10,000	No
Receptor_120	802	799	776	(26)	2,884	2,884	10,000	No	(22)	2,884	2,884	10,000	No
Receptor_121	779	805	779	0	2,884	2,884	10,000	No	(25)	2,884	2,884	10,000	No
Receptor_122	795	801	784	(11)	2,884	2,884	10,000	No	(17)	2,884	2,884	10,000	No
Receptor_123	773	760	764	(8)	2,884	2,884	10,000	No	4	2,884	2,888	10,000	No
Receptor_124	760	744	739	(21)	2,884	2,884	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_125	823	770	774	(50)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_126	799	741	747	(52)	2,884	2,884	10,000	No	6	2,884	2,891	10,000	No
Receptor_127	733	705	709	(24)	2,884	2,884	10,000	No	4	2,884	2,888	10,000	No
Receptor_128	677	670	669	(8)	2,884	2,884	10,000	No	(1)	2,884	2,884	10,000	No
Receptor_129	645	651	651	7	2,884	2,891	10,000	No	0	2,884	2,885	10,000	No
Receptor_130	635	637	634	(2)	2,884	2,884	10,000	No	(4)	2,884	2,884	10,000	No
Receptor_131	632	618	621	(11)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_132	603	587	591	(12)	2,884	2,884	10,000	No	3	2,884	2,888	10,000	No
Receptor_133	575	560	563	(13)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_134	551	536	538	(13)	2,884	2,884	10,000	No	2	2,884	2,886	10,000	No
Receptor_135	528	514	515	(13)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No
Receptor_136	509	494	495	(14)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No
Receptor_137	490	476	477	(14)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No
Receptor_138	501	466	477	(24)	2,884	2,884	10,000	No	11	2,884	2,895	10,000	No
Receptor_139	503	458	470	(33)	2,884	2,884	10,000	No	12	2,884	2,896	10,000	No
Receptor_140	493	449	457	(36)	2,884	2,884	10,000	No	8	2,884	2,892	10,000	No
Receptor_141	495	452	455	(40)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_142	485	444	445	(41)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No
Receptor_143	511	446	445	(66)	2,884	2,884	10,000	No	(1)	2,884	2,884	10,000	No
Receptor_144	542	456	453	(89)	2,884	2,884	10,000	No	(2)	2,884	2,884	10,000	No
Receptor_145	576	500	489	(88)	2,884	2,884	10,000	No	(11)	2,884	2,884	10,000	No
Receptor_146	566	494	481	(84)	2,884	2,884	10,000	No	(13)	2,884	2,884	10,000	No
Receptor_147	558	496	480	(78)	2,884	2,884	10,000	No	(16)	2,884	2,884	10,000	No
Receptor_148	558	509	488	(70)	2,884	2,884	10,000	No	(21)	2,884	2,884	10,000	No
Receptor_149	577	538	512	(65)	2,884	2,884	10,000	No	(26)	2,884	2,884	10,000	No
Receptor_150	588	554	526	(62)	2,884	2,884	10,000	No	(28)	2,884	2,884	10,000	No
Receptor_151	592	556	529	(63)	2,884	2,884	10,000	No	(27)	2,884	2,884	10,000	No
Receptor_152	591	547	526	(65)	2,884	2,884	10,000	No	(22)	2,884	2,884	10,000	No
Receptor_153	587	542	528	(59)	2,884	2,884	10,000	No	(14)	2,884	2,884	10,000	No
Receptor_154	623	556	536	(87)	2,884	2,884	10,000	No	(20)	2,884	2,884	10,000	No
Receptor_155	625	561	537	(88)	2,884	2,884	10,000	No	(24)	2,884	2,884	10,000	No
Receptor_156	626	567	540	(86)	2,884	2,884	10,000	No	(27)	2,884	2,884	10,000	No
Receptor_157	654	581	550	(104)	2,884	2,884	10,000	No	(31)	2,884	2,884	10,000	No
Receptor_158	656	574	545	(110)	2,884	2,884	10,000	No	(28)	2,884	2,884	10,000	No
Receptor_159	682	585	553	(129)	2,884	2,884	10,000	No	(32)	2,884	2,884	10,000	No
Receptor_160	704	593	559	(145)	2,884	2,884	10,000	No	(34)	2,884	2,884	10,000	No
Receptor_161	728	602	576	(152)	2,884	2,884	10,000	No	(26)	2,884	2,884	10,000	No
Receptor_162	754	611	598	(156)	2,884	2,884	10,000	No	(13)	2,884	2,884	10,000	No
Receptor_163	775	622	623	(153)	2,884	2,884	10,000	No	0	2,884	2,885	10,000	No
Receptor_164	792	651	646	(146)	2,884	2,884	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_165	807	694	672	(135)	2,884	2,884	10,000	No	(22)	2,884	2,884	10,000	No
Receptor_166	831	745	701	(130)	2,884	2,884	10,000	No	(44)	2,884	2,884	10,000	No
Receptor_167	901	805	737	(164)	2,884	2,884	10,000	No	(68)	2,884	2,884	10,000	No
Receptor_168	1,005	877	804	(201)	2,884	2,884	10,000	No	(73)	2,884	2,884	10,000	No
Receptor_169	1,096	928	853	(243)	2,884	2,884	10,000	No	(75)	2,884	2,884	10,000	No
Receptor_170	963	941	826	(137)	2,884	2,884	10,000	No	(115)	2,884	2,884	10,000	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	983	847	847	(136)	2,884	2,884	10,000	No	(0)	2,884	2,884	10,000	No
Receptor_172	997	880	877	(120)	2,884	2,884	10,000	No	(2)	2,884	2,884	10,000	No
Receptor_173	1,037	992	929	(109)	2,884	2,884	10,000	No	(63)	2,884	2,884	10,000	No
Receptor_174	1,057	992	946	(111)	2,884	2,884	10,000	No	(47)	2,884	2,884	10,000	No
Receptor_175	1,091	933	978	(114)	2,884	2,884	10,000	No	44	2,884	2,929	10,000	No
Receptor_176	1,101	938	985	(116)	2,884	2,884	10,000	No	47	2,884	2,931	10,000	No
Receptor_177	1,049	887	931	(119)	2,884	2,884	10,000	No	44	2,884	2,928	10,000	No
Receptor_178	964	806	846	(118)	2,884	2,884	10,000	No	40	2,884	2,924	10,000	No
Receptor_179	901	755	793	(108)	2,884	2,884	10,000	No	38	2,884	2,922	10,000	No
Receptor_180	858	734	763	(94)	2,884	2,884	10,000	No	30	2,884	2,914	10,000	No
Receptor_181	831	711	752	(79)	2,884	2,884	10,000	No	42	2,884	2,926	10,000	No
Receptor_182	795	683	727	(68)	2,884	2,884	10,000	No	45	2,884	2,929	10,000	No
Receptor_183	743	672	680	(63)	2,884	2,884	10,000	No	7	2,884	2,892	10,000	No
Receptor_184	698	660	668	(30)	2,884	2,884	10,000	No	8	2,884	2,892	10,000	No
Receptor_185	688	648	658	(30)	2,884	2,884	10,000	No	10	2,884	2,894	10,000	No
Receptor_186	672	631	638	(34)	2,884	2,884	10,000	No	7	2,884	2,891	10,000	No
Receptor_187	657	614	615	(42)	2,884	2,884	10,000	No	1	2,884	2,886	10,000	No
Receptor_188	639	594	596	(43)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_189	608	565	587	(21)	2,884	2,884	10,000	No	22	2,884	2,906	10,000	No
Receptor_190	578	539	577	(1)	2,884	2,884	10,000	No	38	2,884	2,923	10,000	No
Receptor_191	542	513	549	6	2,884	2,890	10,000	No	36	2,884	2,920	10,000	No
Receptor_192	517	488	519	3	2,884	2,887	10,000	No	31	2,884	2,916	10,000	No
Receptor_193	499	465	490	(10)	2,884	2,884	10,000	No	25	2,884	2,909	10,000	No
Receptor_194	488	454	461	(26)	2,884	2,884	10,000	No	8	2,884	2,892	10,000	No
Receptor_195	479	447	449	(30)	2,884	2,884	10,000	No	2	2,884	2,886	10,000	No
Receptor_196	473	444	443	(30)	2,884	2,884	10,000	No	(1)	2,884	2,884	10,000	No
Receptor_197	469	444	437	(31)	2,884	2,884	10,000	No	(6)	2,884	2,884	10,000	No
Receptor_198	465	444	429	(36)	2,884	2,884	10,000	No	(15)	2,884	2,884	10,000	No
Receptor_199	466	443	419	(46)	2,884	2,884	10,000	No	(24)	2,884	2,884	10,000	No
Receptor_200	465	442	412	(53)	2,884	2,884	10,000	No	(31)	2,884	2,884	10,000	No
Receptor_201	464	441	404	(59)	2,884	2,884	10,000	No	(36)	2,884	2,884	10,000	No
Receptor_202	454	431	396	(59)	2,884	2,884	10,000	No	(36)	2,884	2,884	10,000	No
Receptor_203	442	419	386	(56)	2,884	2,884	10,000	No	(33)	2,884	2,884	10,000	No
Receptor_204	431	407	376	(55)	2,884	2,884	10,000	No	(31)	2,884	2,884	10,000	No
Receptor_205	419	395	366	(53)	2,884	2,884	10,000	No	(29)	2,884	2,884	10,000	No
Receptor_206	409	383	357	(52)	2,884	2,884	10,000	No	(27)	2,884	2,884	10,000	No
Receptor_207	398	372	347	(51)	2,884	2,884	10,000	No	(25)	2,884	2,884	10,000	No
Receptor_208	388	361	337	(51)	2,884	2,884	10,000	No	(24)	2,884	2,884	10,000	No
Receptor_209	383	355	332	(51)	2,884	2,884	10,000	No	(24)	2,884	2,884	10,000	No
Receptor_210	383	355	343	(40)	2,884	2,884	10,000	No	(12)	2,884	2,884	10,000	No
Receptor_211	386	358	359	(27)	2,884	2,884	10,000	No	1	2,884	2,886	10,000	No
Receptor_212	394	366	375	(19)	2,884	2,884	10,000	No	9	2,884	2,893	10,000	No
Receptor_213	406	379	390	(17)	2,884	2,884	10,000	No	11	2,884	2,895	10,000	No
Receptor_214	423	396	402	(21)	2,884	2,884	10,000	No	6	2,884	2,890	10,000	No
Receptor_215	440	414	410	(30)	2,884	2,884	10,000	No	(4)	2,884	2,884	10,000	No
Receptor_216	454	428	416	(38)	2,884	2,884	10,000	No	(12)	2,884	2,884	10,000	No
Receptor_217	473	446	441	(31)	2,884	2,884	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_218	480	453	457	(23)	2,884	2,884	10,000	No	4	2,884	2,888	10,000	No
Receptor_219	500	473	474	(26)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No
Receptor_220	520	492	495	(25)	2,884	2,884	10,000	No	3	2,884	2,887	10,000	No
Receptor_221	532	503	515	(18)	2,884	2,884	10,000	No	12	2,884	2,896	10,000	No
Receptor_222	539	507	532	(7)	2,884	2,884	10,000	No	25	2,884	2,909	10,000	No
Receptor_223	556	511	547	(9)	2,884	2,884	10,000	No	36	2,884	2,920	10,000	No
Receptor_224	564	520	558	(6)	2,884	2,884	10,000	No	38	2,884	2,922	10,000	No
Receptor_225	566	528	567	1	2,884	2,885	10,000	No	39	2,884	2,923	10,000	No
Receptor_226	539	510	545	6	2,884	2,890	10,000	No	36	2,884	2,920	10,000	No
Receptor_227	607	561	598	(9)	2,884	2,884	10,000	No	37	2,884	2,922	10,000	No
Receptor_228	660	596	627	(33)	2,884	2,884	10,000	No	31	2,884	2,915	10,000	No
Receptor_229	727	641	662	(66)	2,884	2,884	10,000	No	21	2,884	2,905	10,000	No
Receptor_230	718	644	653	(66)	2,884	2,884	10,000	No	8	2,884	2,892	10,000	No
Receptor_231	694	646	640	(54)	2,884	2,884	10,000	No	(6)	2,884	2,884	10,000	No
Receptor_232	744	703	679	(65)	2,884	2,884	10,000	No	(24)	2,884	2,884	10,000	No
Receptor_233	793	772	727	(66)	2,884	2,884	10,000	No	(44)	2,884	2,884	10,000	No
Receptor_234	848	879	829	(19)	2,884	2,884	10,000	No	(50)	2,884	2,884	10,000	No
Receptor_235	952	896	836	(115)	2,884	2,884	10,000	No	(60)	2,884	2,884	10,000	No
Receptor_236	1,058	1,064	1,085	27	2,884	2,911	10,000	No	21	2,884	2,905	10,000	No
Receptor_237	920	931	1,006	86	2,884	2,970	10,000	No	76	2,884	2,960	10,000	No
Receptor_238	822	842	919	97	2,884	2,981	10,000	No	77	2,884	2,961	10,000	No
Receptor_239	755	774	844	90	2,884	2,974	10,000	No	71	2,884	2,955	10,000	No
Receptor_240	811	824	829	18	2,884	2,902	10,000	No	5	2,884	2,889	10,000	No
Receptor_241	725	734	741	15	2,884	2,900	10,000	No	7	2,884	2,891	10,000	No
Receptor_242	659	664	669	11	2,884	2,895	10,000	No	5	2,884	2,890	10,000	No
Receptor_243	606	608	612	7	2,884	2,891	10,000	No	4	2,884	2,888	10,000	No
Receptor_244	561	562	566	4	2,884	2,889	10,000	No	4	2,884	2,888	10,000	No
Receptor_245	508	506	509	1	2,884	2,885	10,000	No	3	2,884	2,887	10,000	No
Receptor_246	506	484	485	(21)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No
Receptor_247	482	438	449	(34)	2,884	2,884	10,000	No	10	2,884	2,894	10,000	No
Receptor_248	443	387	404	(39)	2,884	2,884	10,000	No	17	2,884	2,901	10,000	No
Receptor_249	392	345	356	(36)	2,884	2,884	10,000	No	11	2,884	2,895	10,000	No
Receptor_250	341	334	320	(21)	2,884	2,884	10,000	No	(14)	2,884	2,884	10,000	No
Receptor_251	326	321	307	(19)	2,884	2,884	10,000	No	(15)	2,884	2,884	10,000	No
Receptor_252	323	305	290	(32)	2,884	2,884	10,000	No	(14)	2,884	2,884	10,000	No
Receptor_253	330	311	301	(29)	2,884	2,884	10,000	No	(10)	2,884	2,884	10,000	No
Receptor_254	337	317	313	(25)	2,884	2,884	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_255	345	324	324	(20)	2,884	2,884	10,000	No	1	2,884	2,885	10,000	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012 Baseline	2019 NO Project	2019 Project	Project Increase	Ambient	Total	Threshold	Exceeds?	Project Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	354	344	327	(27)	2,884	2,884	10,000	No	(17)	2,884	2,884	10,000	No
Receptor_257	362	364	346	(16)	2,884	2,884	10,000	No	(18)	2,884	2,884	10,000	No
Receptor_258	371	373	354	(17)	2,884	2,884	10,000	No	(19)	2,884	2,884	10,000	No
Receptor_259	362	353	337	(25)	2,884	2,884	10,000	No	(16)	2,884	2,884	10,000	No
Receptor_260	351	329	335	(16)	2,884	2,884	10,000	No	6	2,884	2,890	10,000	No
Receptor_261	356	335	343	(13)	2,884	2,884	10,000	No	8	2,884	2,892	10,000	No
Receptor_262	363	348	353	(10)	2,884	2,884	10,000	No	5	2,884	2,890	10,000	No
Receptor_263	361	347	351	(10)	2,884	2,884	10,000	No	4	2,884	2,888	10,000	No
Receptor_264	356	339	346	(10)	2,884	2,884	10,000	No	7	2,884	2,891	10,000	No
Receptor_265	345	328	337	(8)	2,884	2,884	10,000	No	9	2,884	2,893	10,000	No
Receptor_266	329	311	325	(5)	2,884	2,884	10,000	No	13	2,884	2,897	10,000	No
Receptor_267	334	325	330	(4)	2,884	2,884	10,000	No	5	2,884	2,889	10,000	No
Receptor_268	337	338	334	(3)	2,884	2,884	10,000	No	(4)	2,884	2,884	10,000	No
Receptor_269	344	349	336	(8)	2,884	2,884	10,000	No	(13)	2,884	2,884	10,000	No
Receptor_270	352	351	340	(12)	2,884	2,884	10,000	No	(11)	2,884	2,884	10,000	No
Receptor_271	360	345	340	(20)	2,884	2,884	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_272	374	360	339	(34)	2,884	2,884	10,000	No	(21)	2,884	2,884	10,000	No
Receptor_273	394	386	343	(51)	2,884	2,884	10,000	No	(43)	2,884	2,884	10,000	No
Receptor_274	415	412	367	(49)	2,884	2,884	10,000	No	(45)	2,884	2,884	10,000	No
Receptor_275	433	432	384	(49)	2,884	2,884	10,000	No	(48)	2,884	2,884	10,000	No
Receptor_276	455	454	402	(53)	2,884	2,884	10,000	No	(53)	2,884	2,884	10,000	No
Receptor_277	482	483	424	(58)	2,884	2,884	10,000	No	(60)	2,884	2,884	10,000	No
Receptor_278	509	514	448	(61)	2,884	2,884	10,000	No	(66)	2,884	2,884	10,000	No
Receptor_279	528	541	470	(58)	2,884	2,884	10,000	No	(71)	2,884	2,884	10,000	No
Receptor_280	545	566	492	(53)	2,884	2,884	10,000	No	(74)	2,884	2,884	10,000	No
Receptor_281	561	588	514	(47)	2,884	2,884	10,000	No	(74)	2,884	2,884	10,000	No
Receptor_282	572	608	536	(36)	2,884	2,884	10,000	No	(72)	2,884	2,884	10,000	No
Receptor_283	582	624	558	(25)	2,884	2,884	10,000	No	(66)	2,884	2,884	10,000	No
Receptor_284	586	634	576	(11)	2,884	2,884	10,000	No	(58)	2,884	2,884	10,000	No
Receptor_285	609	660	619	10	2,884	2,894	10,000	No	(41)	2,884	2,884	10,000	No
Receptor_286	682	733	669	(13)	2,884	2,884	10,000	No	(63)	2,884	2,884	10,000	No
Receptor_287	733	780	703	(29)	2,884	2,884	10,000	No	(77)	2,884	2,884	10,000	No
Receptor_288	780	828	738	(43)	2,884	2,884	10,000	No	(90)	2,884	2,884	10,000	No
Receptor_289	798	849	769	(29)	2,884	2,884	10,000	No	(80)	2,884	2,884	10,000	No
Receptor_290	763	825	783	20	2,884	2,904	10,000	No	(42)	2,884	2,884	10,000	No
Receptor_291	728	806	805	77	2,884	2,961	10,000	No	(1)	2,884	2,884	10,000	No
Receptor_292	659	739	769	110	2,884	2,994	10,000	No	30	2,884	2,914	10,000	No
Receptor_293	686	741	795	109	2,884	2,993	10,000	No	53	2,884	2,938	10,000	No
Receptor_294	740	771	784	44	2,884	2,928	10,000	No	13	2,884	2,897	10,000	No
Receptor_295	793	818	791	(2)	2,884	2,884	10,000	No	(27)	2,884	2,884	10,000	No
Receptor_296	830	851	821	(9)	2,884	2,884	10,000	No	(30)	2,884	2,884	10,000	No
Receptor_297	853	871	850	(3)	2,884	2,884	10,000	No	(21)	2,884	2,884	10,000	No
Receptor_298	867	873	868	0	2,884	2,885	10,000	No	(5)	2,884	2,884	10,000	No
Receptor_299	923	866	871	(51)	2,884	2,884	10,000	No	6	2,884	2,890	10,000	No
Receptor_300	936	862	876	(60)	2,884	2,884	10,000	No	14	2,884	2,898	10,000	No
Receptor_301	917	852	879	(38)	2,884	2,884	10,000	No	27	2,884	2,911	10,000	No
Receptor_302	911	827	882	(29)	2,884	2,884	10,000	No	55	2,884	2,939	10,000	No
Receptor_303	929	871	849	(79)	2,884	2,884	10,000	No	(22)	2,884	2,884	10,000	No
Receptor_304	911	895	813	(98)	2,884	2,884	10,000	No	(82)	2,884	2,884	10,000	No
Receptor_305	875	893	779	(96)	2,884	2,884	10,000	No	(114)	2,884	2,884	10,000	No
Receptor_306	899	875	788	(111)	2,884	2,884	10,000	No	(86)	2,884	2,884	10,000	No
Receptor_307	922	901	806	(117)	2,884	2,884	10,000	No	(95)	2,884	2,884	10,000	No
Receptor_308	925	906	811	(113)	2,884	2,884	10,000	No	(94)	2,884	2,884	10,000	No
Receptor_309	914	896	814	(99)	2,884	2,884	10,000	No	(82)	2,884	2,884	10,000	No
Receptor_310	889	871	814	(75)	2,884	2,884	10,000	No	(57)	2,884	2,884	10,000	No
Receptor_311	854	835	813	(41)	2,884	2,884	10,000	No	(22)	2,884	2,884	10,000	No
Receptor_312	811	791	813	2	2,884	2,886	10,000	No	23	2,884	2,907	10,000	No
Receptor_313	765	744	811	45	2,884	2,930	10,000	No	67	2,884	2,951	10,000	No
Receptor_314	718	696	799	81	2,884	2,965	10,000	No	103	2,884	2,987	10,000	No
Receptor_315	673	669	783	110	2,884	2,994	10,000	No	114	2,884	2,998	10,000	No
Receptor_316	632	648	773	140	2,884	3,025	10,000	No	125	2,884	3,009	10,000	No
Receptor_317	596	623	756	160	2,884	3,044	10,000	No	132	2,884	3,016	10,000	No
Receptor_318	571	602	734	163	2,884	3,047	10,000	No	132	2,884	3,016	10,000	No
Receptor_319	548	581	710	162	2,884	3,047	10,000	No	129	2,884	3,014	10,000	No
Receptor_320	527	561	687	160	2,884	3,044	10,000	No	126	2,884	3,010	10,000	No
Receptor_321	507	543	664	156	2,884	3,040	10,000	No	121	2,884	3,005	10,000	No
Receptor_322	483	520	637	154	2,884	3,038	10,000	No	116	2,884	3,000	10,000	No
Receptor_323	457	499	608	151	2,884	3,035	10,000	No	110	2,884	2,994	10,000	No
Receptor_324	437	478	580	143	2,884	3,027	10,000	No	102	2,884	2,986	10,000	No
Receptor_325	424	458	552	128	2,884	3,012	10,000	No	93	2,884	2,978	10,000	No
Receptor_326	409	440	525	116	2,884	3,000	10,000	No	85	2,884	2,969	10,000	No
Receptor_327	1,124	1,056	974	(150)	2,884	2,884	10,000	No	(83)	2,884	2,884	10,000	No
Maximum	1,124	1,064	1,085	163	2,884	3,047	10,000	No	148	2,884	3,033	10,000	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_1	151	146	147	(4)	122	122	188	No	1	122	123	188	No
Receptor_2	152	147	146	(6)	122	122	188	No	(1)	122	122	188	No
Receptor_3	149	146	147	(2)	122	122	188	No	2	122	124	188	No
Receptor_4	145	144	146	0	122	123	188	No	2	122	124	188	No
Receptor_5	146	146	147	1	122	123	188	No	1	122	124	188	No
Receptor_6	146	147	147	1	122	124	188	No	1	122	123	188	No
Receptor_7	144	149	149	6	122	128	188	No	0	122	123	188	No
Receptor_8	142	149	151	9	122	131	188	No	2	122	125	188	No
Receptor_9	142	152	149	7	122	129	188	No	(3)	122	122	188	No
Receptor_10	143	149	151	8	122	130	188	No	2	122	124	188	No
Receptor_11	142	148	151	9	122	131	188	No	3	122	125	188	No
Receptor_12	144	149	152	9	122	131	188	No	3	122	126	188	No
Receptor_13	142	146	156	14	122	136	188	No	9	122	132	188	No
Receptor_14	145	143	156	11	122	133	188	No	13	122	135	188	No
Receptor_15	150	149	150	(0)	122	122	188	No	1	122	124	188	No
Receptor_16	149	153	147	(2)	122	122	188	No	(6)	122	122	188	No
Receptor_17	144	154	143	(1)	122	122	188	No	(11)	122	122	188	No
Receptor_18	144	150	144	(0)	122	122	188	No	(6)	122	122	188	No
Receptor_19	149	149	144	(5)	122	122	188	No	(5)	122	122	188	No
Receptor_20	148	151	146	(2)	122	122	188	No	(5)	122	122	188	No
Receptor_21	149	150	145	(4)	122	122	188	No	(5)	122	122	188	No
Receptor_22	148	148	149	1	122	123	188	No	2	122	124	188	No
Receptor_23	145	146	152	7	122	129	188	No	6	122	128	188	No
Receptor_24	146	148	155	8	122	131	188	No	7	122	129	188	No
Receptor_25	144	147	150	6	122	128	188	No	2	122	125	188	No
Receptor_26	142	148	150	8	122	130	188	No	2	122	124	188	No
Receptor_27	142	145	147	5	122	127	188	No	2	122	124	188	No
Receptor_28	141	144	145	4	122	127	188	No	2	122	124	188	No
Receptor_29	142	145	148	6	122	128	188	No	3	122	125	188	No
Receptor_30	143	146	149	5	122	127	188	No	2	122	124	188	No
Receptor_31	144	148	149	5	122	127	188	No	1	122	124	188	No
Receptor_32	145	148	148	3	122	125	188	No	(0)	122	122	188	No
Receptor_33	147	149	150	3	122	125	188	No	0	122	122	188	No
Receptor_34	148	150	152	4	122	126	188	No	1	122	123	188	No
Receptor_35	152	154	152	(0)	122	122	188	No	(2)	122	122	188	No
Receptor_36	153	160	155	2	122	124	188	No	(4)	122	122	188	No
Receptor_37	153	160	160	6	122	128	188	No	(1)	122	122	188	No
Receptor_38	154	159	162	8	122	130	188	No	3	122	126	188	No
Receptor_39	153	160	164	11	122	133	188	No	4	122	126	188	No
Receptor_40	155	163	169	14	122	136	188	No	6	122	128	188	No
Receptor_41	156	164	170	14	122	136	188	No	6	122	128	188	No
Receptor_42	159	166	170	12	122	134	188	No	4	122	126	188	No
Receptor_43	161	166	170	9	122	131	188	No	4	122	126	188	No
Receptor_44	166	167	169	3	122	125	188	No	1	122	124	188	No
Receptor_45	170	170	169	(1)	122	122	188	No	(1)	122	122	188	No
Receptor_46	169	171	172	3	122	125	188	No	1	122	123	188	No
Receptor_47	170	176	177	8	122	130	188	No	2	122	124	188	No
Receptor_48	172	174	176	4	122	126	188	No	2	122	124	188	No
Receptor_49	173	177	179	6	122	128	188	No	2	122	124	188	No
Receptor_50	177	179	179	2	122	125	188	No	1	122	123	188	No
Receptor_51	179	179	176	(3)	122	122	188	No	(3)	122	122	188	No
Receptor_52	178	178	173	(5)	122	122	188	No	(5)	122	122	188	No
Receptor_53	177	175	169	(8)	122	122	188	No	(7)	122	122	188	No
Receptor_54	174	172	165	(9)	122	122	188	No	(7)	122	122	188	No
Receptor_55	171	170	163	(8)	122	122	188	No	(6)	122	122	188	No
Receptor_56	165	168	165	(0)	122	122	188	No	(3)	122	122	188	No
Receptor_57	168	170	167	(1)	122	122	188	No	(2)	122	122	188	No
Receptor_58	171	171	170	(1)	122	122	188	No	(2)	122	122	188	No
Receptor_59	179	175	169	(9)	122	122	188	No	(6)	122	122	188	No
Receptor_60	181	178	173	(9)	122	122	188	No	(5)	122	122	188	No
Receptor_61	184	180	177	(8)	122	122	188	No	(4)	122	122	188	No
Receptor_62	187	183	181	(7)	122	122	188	No	(2)	122	122	188	No
Receptor_63	191	186	185	(6)	122	122	188	No	(1)	122	122	188	No
Receptor_64	194	189	190	(4)	122	122	188	No	1	122	123	188	No
Receptor_65	195	190	190	(6)	122	122	188	No	0	122	122	188	No
Receptor_66	196	190	189	(7)	122	122	188	No	(1)	122	122	188	No
Receptor_67	195	193	189	(6)	122	122	188	No	(4)	122	122	188	No
Receptor_68	194	196	190	(4)	122	122	188	No	(6)	122	122	188	No
Receptor_69	202	199	201	(1)	122	122	188	No	2	122	124	188	No
Receptor_70	195	201	191	(4)	122	122	188	No	(9)	122	122	188	No
Receptor_71	194	201	189	(5)	122	122	188	No	(12)	122	122	188	No
Receptor_72	187	200	190	3	122	125	188	No	(10)	122	122	188	No
Receptor_73	187	198	190	3	122	125	188	No	(8)	122	122	188	No
Receptor_74	186	197	196	10	122	132	188	No	(1)	122	122	188	No
Receptor_75	188	192	195	7	122	129	188	No	3	122	125	188	No
Receptor_76	197	198	197	0	122	122	188	No	(1)	122	122	188	No
Receptor_77	196	195	195	(2)	122	122	188	No	(0)	122	122	188	No
Receptor_78	195	199	195	(0)	122	122	188	No	(4)	122	122	188	No
Receptor_79	204	209	200	(4)	122	122	188	No	(8)	122	122	188	No
Receptor_80	212	213	212	(0)	122	122	188	No	(2)	122	122	188	No
Receptor_81	222	228	223	1	122	123	188	No	(5)	122	122	188	No
Receptor_82	221	219	220	(1)	122	122	188	No	1	122	123	188	No
Receptor_83	213	218	211	(2)	122	122	188	No	(8)	122	122	188	No
Receptor_84	200	205	198	(2)	122	122	188	No	(7)	122	122	188	No
Receptor_85	191	199	191	0	122	123	188	No	(7)	122	122	188	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	184	191	186	2	122	124	188	No	(5)	122	122	188	No
Receptor_87	185	187	183	(3)	122	122	188	No	(5)	122	122	188	No
Receptor_88	181	189	183	2	122	124	188	No	(6)	122	122	188	No
Receptor_89	182	185	185	2	122	125	188	No	0	122	122	188	No
Receptor_90	182	177	173	(9)	122	122	188	No	(4)	122	122	188	No
Receptor_91	180	176	171	(9)	122	122	188	No	(5)	122	122	188	No
Receptor_92	175	175	163	(12)	122	122	188	No	(12)	122	122	188	No
Receptor_93	173	177	164	(9)	122	122	188	No	(14)	122	122	188	No
Receptor_94	176	177	165	(11)	122	122	188	No	(12)	122	122	188	No
Receptor_95	175	174	168	(7)	122	122	188	No	(6)	122	122	188	No
Receptor_96	175	176	168	(7)	122	122	188	No	(8)	122	122	188	No
Receptor_97	175	175	172	(3)	122	122	188	No	(4)	122	122	188	No
Receptor_98	182	185	176	(6)	122	122	188	No	(9)	122	122	188	No
Receptor_99	192	190	181	(11)	122	122	188	No	(8)	122	122	188	No
Receptor_100	202	203	190	(12)	122	122	188	No	(13)	122	122	188	No
Receptor_101	201	203	190	(11)	122	122	188	No	(13)	122	122	188	No
Receptor_102	195	201	197	2	122	124	188	No	(4)	122	122	188	No
Receptor_103	202	197	197	(6)	122	122	188	No	(0)	122	122	188	No
Receptor_104	207	201	206	(2)	122	122	188	No	4	122	126	188	No
Receptor_105	215	201	211	(4)	122	122	188	No	10	122	132	188	No
Receptor_106	220	210	215	(4)	122	122	188	No	6	122	128	188	No
Receptor_107	230	220	223	(7)	122	122	188	No	2	122	124	188	No
Receptor_108	241	218	227	(13)	122	122	188	No	9	122	131	188	No
Receptor_109	239	211	225	(14)	122	122	188	No	14	122	137	188	No
Receptor_110	215	206	213	(2)	122	122	188	No	7	122	129	188	No
Receptor_111	209	201	203	(6)	122	122	188	No	2	122	124	188	No
Receptor_112	199	203	217	18	122	140	188	No	14	122	136	188	No
Receptor_113	205	203	222	17	122	139	188	No	19	122	142	188	No
Receptor_114	208	199	204	(4)	122	122	188	No	5	122	127	188	No
Receptor_115	200	196	199	(1)	122	122	188	No	3	122	125	188	No
Receptor_116	195	198	196	1	122	123	188	No	(2)	122	122	188	No
Receptor_117	207	209	207	0	122	122	188	No	(2)	122	122	188	No
Receptor_118	212	228	223	11	122	133	188	No	(5)	122	122	188	No
Receptor_119	234	237	238	4	122	126	188	No	1	122	123	188	No
Receptor_120	260	260	260	(0)	122	122	188	No	0	122	122	188	No
Receptor_121	259	264	259	(0)	122	122	188	No	(4)	122	122	188	No
Receptor_122	251	267	270	19	122	142	188	No	3	122	125	188	No
Receptor_123	245	261	258	14	122	136	188	No	(3)	122	122	188	No
Receptor_124	242	253	255	13	122	135	188	No	2	122	125	188	No
Receptor_125	249	251	266	17	122	139	188	No	14	122	136	188	No
Receptor_126	238	238	264	26	122	148	188	No	26	122	148	188	No
Receptor_127	225	227	236	12	122	134	188	No	9	122	132	188	No
Receptor_128	212	225	229	16	122	139	188	No	4	122	126	188	No
Receptor_129	203	218	221	19	122	141	188	No	3	122	125	188	No
Receptor_130	199	209	216	17	122	139	188	No	7	122	129	188	No
Receptor_131	196	206	209	12	122	134	188	No	2	122	125	188	No
Receptor_132	187	194	200	13	122	136	188	No	6	122	128	188	No
Receptor_133	180	183	194	15	122	137	188	No	11	122	133	188	No
Receptor_134	173	180	187	14	122	136	188	No	8	122	130	188	No
Receptor_135	170	177	181	11	122	133	188	No	5	122	127	188	No
Receptor_136	168	172	175	7	122	129	188	No	3	122	125	188	No
Receptor_137	163	167	169	6	122	129	188	No	2	122	124	188	No
Receptor_138	159	162	169	9	122	131	188	No	7	122	129	188	No
Receptor_139	160	161	169	10	122	132	188	No	9	122	131	188	No
Receptor_140	158	162	164	6	122	128	188	No	2	122	124	188	No
Receptor_141	162	160	165	3	122	125	188	No	5	122	127	188	No
Receptor_142	160	160	163	2	122	125	188	No	2	122	124	188	No
Receptor_143	162	159	166	4	122	126	188	No	7	122	129	188	No
Receptor_144	166	161	167	1	122	123	188	No	6	122	128	188	No
Receptor_145	176	164	172	(4)	122	122	188	No	8	122	130	188	No
Receptor_146	181	162	168	(13)	122	122	188	No	6	122	128	188	No
Receptor_147	178	166	166	(12)	122	122	188	No	(1)	122	122	188	No
Receptor_148	183	167	169	(14)	122	122	188	No	2	122	124	188	No
Receptor_149	190	166	175	(15)	122	122	188	No	9	122	131	188	No
Receptor_150	180	168	176	(4)	122	122	188	No	8	122	130	188	No
Receptor_151	180	170	174	(6)	122	122	188	No	5	122	127	188	No
Receptor_152	183	175	180	(3)	122	122	188	No	5	122	127	188	No
Receptor_153	186	183	188	2	122	124	188	No	5	122	127	188	No
Receptor_154	188	185	190	2	122	124	188	No	5	122	128	188	No
Receptor_155	184	181	186	2	122	124	188	No	5	122	127	188	No
Receptor_156	182	177	182	0	122	123	188	No	6	122	128	188	No
Receptor_157	183	175	173	(9)	122	122	188	No	(2)	122	122	188	No
Receptor_158	187	178	177	(10)	122	122	188	No	(1)	122	122	188	No
Receptor_159	185	177	178	(7)	122	122	188	No	1	122	124	188	No
Receptor_160	181	182	175	(6)	122	122	188	No	(7)	122	122	188	No
Receptor_161	181	184	176	(5)	122	122	188	No	(7)	122	122	188	No
Receptor_162	182	186	183	1	122	123	188	No	(3)	122	122	188	No
Receptor_163	194	191	187	(8)	122	122	188	No	(5)	122	122	188	No
Receptor_164	199	197	193	(6)	122	122	188	No	(4)	122	122	188	No
Receptor_165	211	200	201	(10)	122	122	188	No	0	122	122	188	No
Receptor_166	225	201	210	(14)	122	122	188	No	9	122	131	188	No
Receptor_167	235	215	221	(14)	122	122	188	No	6	122	129	188	No
Receptor_168	244	231	238	(6)	122	122	188	No	6	122	128	188	No
Receptor_169	249	240	247	(3)	122	122	188	No	7	122	129	188	No
Receptor_170	233	226	229	(4)	122	122	188	No	3	122	126	188	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	228	213	233	5	122	128	188	No	20	122	142	188	No
Receptor_172	219	201	215	(4)	122	122	188	No	13	122	136	188	No
Receptor_173	217	200	211	(6)	122	122	188	No	11	122	134	188	No
Receptor_174	205	199	205	(1)	122	122	188	No	6	122	128	188	No
Receptor_175	202	199	194	(8)	122	122	188	No	(5)	122	122	188	No
Receptor_176	199	193	195	(4)	122	122	188	No	2	122	124	188	No
Receptor_177	194	189	190	(5)	122	122	188	No	0	122	123	188	No
Receptor_178	190	194	191	1	122	123	188	No	(4)	122	122	188	No
Receptor_179	190	199	189	(2)	122	122	188	No	(10)	122	122	188	No
Receptor_180	186	204	188	2	122	124	188	No	(16)	122	122	188	No
Receptor_181	189	209	196	7	122	129	188	No	(13)	122	122	188	No
Receptor_182	199	208	201	2	122	125	188	No	(7)	122	122	188	No
Receptor_183	209	206	220	11	122	133	188	No	14	122	136	188	No
Receptor_184	221	214	225	4	122	127	188	No	11	122	134	188	No
Receptor_185	226	227	233	6	122	129	188	No	5	122	127	188	No
Receptor_186	229	234	248	19	122	141	188	No	14	122	137	188	No
Receptor_187	234	233	239	5	122	127	188	No	6	122	128	188	No
Receptor_188	234	246	237	4	122	126	188	No	(9)	122	122	188	No
Receptor_189	239	256	249	10	122	132	188	No	(6)	122	122	188	No
Receptor_190	239	255	246	8	122	130	188	No	(9)	122	122	188	No
Receptor_191	225	239	232	7	122	129	188	No	(7)	122	122	188	No
Receptor_192	212	227	217	4	122	127	188	No	(10)	122	122	188	No
Receptor_193	199	216	208	9	122	131	188	No	(8)	122	122	188	No
Receptor_194	187	204	199	11	122	134	188	No	(5)	122	122	188	No
Receptor_195	177	197	190	13	122	135	188	No	(7)	122	122	188	No
Receptor_196	172	188	182	10	122	132	188	No	(6)	122	122	188	No
Receptor_197	169	180	176	7	122	129	188	No	(4)	122	122	188	No
Receptor_198	168	174	171	3	122	125	188	No	(3)	122	122	188	No
Receptor_199	164	166	166	2	122	124	188	No	(0)	122	122	188	No
Receptor_200	160	165	164	5	122	127	188	No	(0)	122	122	188	No
Receptor_201	156	160	159	3	122	125	188	No	(0)	122	122	188	No
Receptor_202	158	156	159	2	122	124	188	No	3	122	125	188	No
Receptor_203	158	160	159	1	122	123	188	No	(1)	122	122	188	No
Receptor_204	155	155	155	0	122	122	188	No	(0)	122	122	188	No
Receptor_205	150	159	155	5	122	127	188	No	(4)	122	122	188	No
Receptor_206	153	165	151	(1)	122	122	188	No	(14)	122	122	188	No
Receptor_207	150	167	153	2	122	124	188	No	(15)	122	122	188	No
Receptor_208	153	164	154	0	122	123	188	No	(10)	122	122	188	No
Receptor_209	157	165	155	(3)	122	122	188	No	(11)	122	122	188	No
Receptor_210	165	172	160	(5)	122	122	188	No	(13)	122	122	188	No
Receptor_211	167	177	165	(3)	122	122	188	No	(12)	122	122	188	No
Receptor_212	173	178	168	(6)	122	122	188	No	(10)	122	122	188	No
Receptor_213	179	179	173	(6)	122	122	188	No	(6)	122	122	188	No
Receptor_214	183	185	180	(3)	122	122	188	No	(4)	122	122	188	No
Receptor_215	190	187	185	(4)	122	122	188	No	(2)	122	122	188	No
Receptor_216	196	195	190	(7)	122	122	188	No	(5)	122	122	188	No
Receptor_217	204	202	202	(1)	122	122	188	No	1	122	123	188	No
Receptor_218	206	208	204	(2)	122	122	188	No	(4)	122	122	188	No
Receptor_219	214	217	214	(0)	122	122	188	No	(3)	122	122	188	No
Receptor_220	231	227	222	(9)	122	122	188	No	(5)	122	122	188	No
Receptor_221	233	238	225	(9)	122	122	188	No	(13)	122	122	188	No
Receptor_222	235	245	231	(4)	122	122	188	No	(14)	122	122	188	No
Receptor_223	226	250	231	6	122	128	188	No	(18)	122	122	188	No
Receptor_224	234	250	234	(0)	122	122	188	No	(16)	122	122	188	No
Receptor_225	233	248	240	7	122	129	188	No	(8)	122	122	188	No
Receptor_226	225	225	225	(0)	122	122	188	No	(1)	122	122	188	No
Receptor_227	253	269	258	5	122	127	188	No	(11)	122	122	188	No
Receptor_228	275	304	278	4	122	126	188	No	(25)	122	122	188	No
Receptor_229	309	332	305	(5)	122	122	188	No	(28)	122	122	188	No
Receptor_230	300	327	305	5	122	127	188	No	(23)	122	122	188	No
Receptor_231	306	334	310	3	122	126	188	No	(24)	122	122	188	No
Receptor_232	349	364	340	(9)	122	122	188	No	(24)	122	122	188	No
Receptor_233	404	398	389	(14)	122	122	188	No	(8)	122	122	188	No
Receptor_234	472	466	448	(24)	122	122	188	No	(18)	122	122	188	No
Receptor_235	466	510	467	1	122	123	188	No	(43)	122	122	188	No
Receptor_236	604	610	586	(18)	122	122	188	No	(24)	122	122	188	No
Receptor_237	502	525	508	5	122	128	188	No	(17)	122	122	188	No
Receptor_238	452	472	481	28	122	151	188	No	9	122	131	188	No
Receptor_239	425	418	439	13	122	136	188	No	20	122	143	188	No
Receptor_240	494	465	491	(3)	122	122	188	No	26	122	148	188	No
Receptor_241	417	393	421	3	122	125	188	No	27	122	150	188	No
Receptor_242	340	353	382	42	122	164	188	No	28	122	151	188	No
Receptor_243	303	321	341	39	122	161	188	No	20	122	142	188	No
Receptor_244	283	296	309	26	122	148	188	No	13	122	136	188	No
Receptor_245	257	268	276	19	122	141	188	No	9	122	131	188	No
Receptor_246	257	286	265	8	122	130	188	No	(21)	122	122	188	No
Receptor_247	252	266	261	9	122	131	188	No	(5)	122	122	188	No
Receptor_248	247	260	240	(7)	122	122	188	No	(20)	122	122	188	No
Receptor_249	247	247	239	(8)	122	122	188	No	(8)	122	122	188	No
Receptor_250	237	237	229	(8)	122	122	188	No	(8)	122	122	188	No
Receptor_251	235	231	233	(2)	122	122	188	No	2	122	124	188	No
Receptor_252	225	221	211	(14)	122	122	188	No	(10)	122	122	188	No
Receptor_253	225	224	209	(15)	122	122	188	No	(14)	122	122	188	No
Receptor_254	224	230	218	(6)	122	122	188	No	(12)	122	122	188	No
Receptor_255	233	229	226	(7)	122	122	188	No	(3)	122	122	188	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012 Baseline	2019 NO Project	2019 Project	Project Increase	Ambient	Total	Threshold	Exceeds?	Project Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	242	245	233	(9)	122	122	188	No	(12)	122	122	188	No
Receptor_257	264	258	253	(12)	122	122	188	No	(5)	122	122	188	No
Receptor_258	266	264	251	(15)	122	122	188	No	(13)	122	122	188	No
Receptor_259	253	248	240	(13)	122	122	188	No	(8)	122	122	188	No
Receptor_260	231	224	226	(5)	122	122	188	No	3	122	125	188	No
Receptor_261	230	225	228	(2)	122	122	188	No	3	122	125	188	No
Receptor_262	228	228	234	6	122	128	188	No	6	122	128	188	No
Receptor_263	212	217	214	2	122	124	188	No	(3)	122	122	188	No
Receptor_264	195	204	198	2	122	125	188	No	(6)	122	122	188	No
Receptor_265	183	192	189	6	122	128	188	No	(3)	122	122	188	No
Receptor_266	172	180	179	6	122	128	188	No	(2)	122	122	188	No
Receptor_267	174	184	180	6	122	128	188	No	(4)	122	122	188	No
Receptor_268	176	184	179	3	122	126	188	No	(4)	122	122	188	No
Receptor_269	177	186	179	2	122	124	188	No	(7)	122	122	188	No
Receptor_270	184	185	180	(4)	122	122	188	No	(5)	122	122	188	No
Receptor_271	189	186	182	(7)	122	122	188	No	(4)	122	122	188	No
Receptor_272	183	191	181	(3)	122	122	188	No	(11)	122	122	188	No
Receptor_273	179	190	183	4	122	126	188	No	(8)	122	122	188	No
Receptor_274	187	188	183	(4)	122	122	188	No	(5)	122	122	188	No
Receptor_275	188	195	188	0	122	123	188	No	(7)	122	122	188	No
Receptor_276	189	204	187	(2)	122	122	188	No	(18)	122	122	188	No
Receptor_277	191	198	186	(4)	122	122	188	No	(12)	122	122	188	No
Receptor_278	195	196	187	(7)	122	122	188	No	(8)	122	122	188	No
Receptor_279	195	193	191	(4)	122	122	188	No	(2)	122	122	188	No
Receptor_280	204	197	197	(7)	122	122	188	No	(0)	122	122	188	No
Receptor_281	209	201	205	(3)	122	122	188	No	4	122	126	188	No
Receptor_282	207	207	207	0	122	122	188	No	0	122	123	188	No
Receptor_283	207	208	202	(5)	122	122	188	No	(7)	122	122	188	No
Receptor_284	204	208	203	(1)	122	122	188	No	(5)	122	122	188	No
Receptor_285	200	207	213	12	122	135	188	No	6	122	128	188	No
Receptor_286	211	212	216	4	122	127	188	No	4	122	126	188	No
Receptor_287	208	209	214	6	122	129	188	No	6	122	128	188	No
Receptor_288	218	224	223	6	122	128	188	No	(1)	122	122	188	No
Receptor_289	217	219	221	3	122	126	188	No	2	122	124	188	No
Receptor_290	208	211	212	4	122	127	188	No	1	122	124	188	No
Receptor_291	200	204	205	5	122	127	188	No	0	122	123	188	No
Receptor_292	190	192	196	6	122	128	188	No	4	122	126	188	No
Receptor_293	190	191	192	2	122	124	188	No	1	122	123	188	No
Receptor_294	188	187	191	3	122	125	188	No	5	122	127	188	No
Receptor_295	188	187	189	1	122	123	188	No	2	122	124	188	No
Receptor_296	188	189	186	(2)	122	122	188	No	(3)	122	122	188	No
Receptor_297	191	189	186	(5)	122	122	188	No	(3)	122	122	188	No
Receptor_298	189	192	185	(5)	122	122	188	No	(8)	122	122	188	No
Receptor_299	187	189	184	(3)	122	122	188	No	(6)	122	122	188	No
Receptor_300	184	190	185	1	122	123	188	No	(5)	122	122	188	No
Receptor_301	182	191	183	1	122	123	188	No	(8)	122	122	188	No
Receptor_302	184	189	183	(1)	122	122	188	No	(6)	122	122	188	No
Receptor_303	182	185	180	(2)	122	122	188	No	(5)	122	122	188	No
Receptor_304	185	187	176	(9)	122	122	188	No	(11)	122	122	188	No
Receptor_305	184	183	177	(7)	122	122	188	No	(5)	122	122	188	No
Receptor_306	183	180	177	(6)	122	122	188	No	(3)	122	122	188	No
Receptor_307	182	180	177	(5)	122	122	188	No	(3)	122	122	188	No
Receptor_308	180	180	176	(3)	122	122	188	No	(3)	122	122	188	No
Receptor_309	178	176	176	(2)	122	122	188	No	0	122	122	188	No
Receptor_310	179	175	174	(5)	122	122	188	No	(1)	122	122	188	No
Receptor_311	180	173	173	(7)	122	122	188	No	0	122	122	188	No
Receptor_312	181	170	170	(11)	122	122	188	No	(1)	122	122	188	No
Receptor_313	180	169	166	(14)	122	122	188	No	(3)	122	122	188	No
Receptor_314	179	168	165	(15)	122	122	188	No	(4)	122	122	188	No
Receptor_315	172	167	163	(10)	122	122	188	No	(4)	122	122	188	No
Receptor_316	169	165	161	(8)	122	122	188	No	(5)	122	122	188	No
Receptor_317	170	163	158	(11)	122	122	188	No	(5)	122	122	188	No
Receptor_318	168	161	156	(12)	122	122	188	No	(5)	122	122	188	No
Receptor_319	167	159	154	(13)	122	122	188	No	(6)	122	122	188	No
Receptor_320	165	158	151	(14)	122	122	188	No	(7)	122	122	188	No
Receptor_321	164	156	151	(13)	122	122	188	No	(6)	122	122	188	No
Receptor_322	161	154	151	(10)	122	122	188	No	(3)	122	122	188	No
Receptor_323	161	152	150	(11)	122	122	188	No	(2)	122	122	188	No
Receptor_324	157	150	149	(8)	122	122	188	No	(1)	122	122	188	No
Receptor_325	152	149	149	(3)	122	122	188	No	0	122	123	188	No
Receptor_326	151	147	148	(3)	122	122	188	No	1	122	123	188	No
Receptor_327	223	207	206	(17)	122	122	188	No	(1)	122	122	188	No
Maximum	604	610	586	42	122	164	188	No	28	122	151	188	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_1	171	179	181	11	184	195	339	No	2	184	187	339	No
Receptor_2	166	181	181	15	184	199	339	No	0	184	184	339	No
Receptor_3	172	178	183	11	184	195	339	No	5	184	189	339	No
Receptor_4	176	171	186	9	184	194	339	No	14	184	199	339	No
Receptor_5	181	169	194	13	184	197	339	No	25	184	209	339	No
Receptor_6	185	173	198	13	184	197	339	No	25	184	209	339	No
Receptor_7	185	174	197	12	184	196	339	No	23	184	207	339	No
Receptor_8	181	171	194	13	184	197	339	No	23	184	207	339	No
Receptor_9	187	180	206	20	184	204	339	No	26	184	210	339	No
Receptor_10	200	190	214	14	184	199	339	No	24	184	209	339	No
Receptor_11	208	194	218	10	184	194	339	No	23	184	208	339	No
Receptor_12	210	194	216	7	184	191	339	No	23	184	207	339	No
Receptor_13	204	193	210	6	184	190	339	No	17	184	201	339	No
Receptor_14	193	199	200	7	184	192	339	No	2	184	186	339	No
Receptor_15	187	209	188	1	184	186	339	No	(21)	184	184	339	No
Receptor_16	188	208	182	(7)	184	184	339	No	(27)	184	184	339	No
Receptor_17	186	194	180	(6)	184	184	339	No	(15)	184	184	339	No
Receptor_18	181	186	175	(6)	184	184	339	No	(11)	184	184	339	No
Receptor_19	174	185	182	8	184	192	339	No	(3)	184	184	339	No
Receptor_20	167	196	176	9	184	193	339	No	(20)	184	184	339	No
Receptor_21	177	200	178	1	184	185	339	No	(22)	184	184	339	No
Receptor_22	185	196	196	10	184	194	339	No	(1)	184	184	339	No
Receptor_23	187	192	205	18	184	202	339	No	13	184	197	339	No
Receptor_24	182	188	204	22	184	206	339	No	16	184	200	339	No
Receptor_25	176	179	194	18	184	202	339	No	14	184	198	339	No
Receptor_26	175	182	191	16	184	200	339	No	9	184	193	339	No
Receptor_27	173	189	190	16	184	201	339	No	1	184	185	339	No
Receptor_28	172	194	187	15	184	199	339	No	(7)	184	184	339	No
Receptor_29	174	195	189	15	184	200	339	No	(6)	184	184	339	No
Receptor_30	175	195	191	16	184	200	339	No	(4)	184	184	339	No
Receptor_31	176	195	193	17	184	201	339	No	(2)	184	184	339	No
Receptor_32	177	205	191	15	184	199	339	No	(14)	184	184	339	No
Receptor_33	178	207	193	15	184	199	339	No	(14)	184	184	339	No
Receptor_34	180	209	195	15	184	199	339	No	(15)	184	184	339	No
Receptor_35	181	217	200	19	184	203	339	No	(17)	184	184	339	No
Receptor_36	180	224	204	25	184	209	339	No	(20)	184	184	339	No
Receptor_37	180	230	208	28	184	213	339	No	(22)	184	184	339	No
Receptor_38	184	234	210	26	184	211	339	No	(24)	184	184	339	No
Receptor_39	186	236	210	24	184	209	339	No	(26)	184	184	339	No
Receptor_40	189	241	214	25	184	209	339	No	(27)	184	184	339	No
Receptor_41	191	243	215	25	184	209	339	No	(28)	184	184	339	No
Receptor_42	192	245	216	24	184	208	339	No	(29)	184	184	339	No
Receptor_43	190	242	213	22	184	207	339	No	(29)	184	184	339	No
Receptor_44	190	240	210	21	184	205	339	No	(29)	184	184	339	No
Receptor_45	193	237	208	15	184	199	339	No	(29)	184	184	339	No
Receptor_46	193	246	215	22	184	206	339	No	(31)	184	184	339	No
Receptor_47	198	255	222	24	184	208	339	No	(32)	184	184	339	No
Receptor_48	197	252	219	22	184	207	339	No	(33)	184	184	339	No
Receptor_49	200	258	224	24	184	208	339	No	(34)	184	184	339	No
Receptor_50	201	259	224	23	184	207	339	No	(35)	184	184	339	No
Receptor_51	202	251	218	16	184	200	339	No	(33)	184	184	339	No
Receptor_52	203	242	211	8	184	192	339	No	(32)	184	184	339	No
Receptor_53	201	229	206	5	184	189	339	No	(23)	184	184	339	No
Receptor_54	199	222	206	6	184	191	339	No	(16)	184	184	339	No
Receptor_55	197	219	204	7	184	191	339	No	(15)	184	184	339	No
Receptor_56	197	218	206	9	184	193	339	No	(12)	184	184	339	No
Receptor_57	199	221	208	10	184	194	339	No	(13)	184	184	339	No
Receptor_58	201	224	211	10	184	194	339	No	(13)	184	184	339	No
Receptor_59	203	226	210	7	184	191	339	No	(17)	184	184	339	No
Receptor_60	206	230	213	8	184	192	339	No	(17)	184	184	339	No
Receptor_61	208	234	217	9	184	193	339	No	(17)	184	184	339	No
Receptor_62	211	239	221	10	184	194	339	No	(17)	184	184	339	No
Receptor_63	215	243	226	11	184	196	339	No	(18)	184	184	339	No
Receptor_64	218	248	231	13	184	197	339	No	(18)	184	184	339	No
Receptor_65	219	252	235	16	184	200	339	No	(17)	184	184	339	No
Receptor_66	221	257	239	18	184	203	339	No	(17)	184	184	339	No
Receptor_67	223	262	244	21	184	205	339	No	(18)	184	184	339	No
Receptor_68	225	267	248	24	184	208	339	No	(19)	184	184	339	No
Receptor_69	229	272	253	24	184	208	339	No	(19)	184	184	339	No
Receptor_70	229	277	256	27	184	211	339	No	(21)	184	184	339	No
Receptor_71	230	281	261	31	184	215	339	No	(20)	184	184	339	No
Receptor_72	230	281	266	37	184	221	339	No	(15)	184	184	339	No
Receptor_73	226	273	271	45	184	229	339	No	(2)	184	184	339	No
Receptor_74	218	252	271	53	184	237	339	No	19	184	203	339	No
Receptor_75	212	226	264	52	184	236	339	No	38	184	222	339	No
Receptor_76	221	258	282	61	184	245	339	No	24	184	208	339	No
Receptor_77	217	234	276	59	184	243	339	No	42	184	226	339	No
Receptor_78	217	233	275	58	184	243	339	No	42	184	226	339	No
Receptor_79	224	243	287	62	184	247	339	No	44	184	228	339	No
Receptor_80	238	284	307	69	184	254	339	No	23	184	208	339	No
Receptor_81	253	326	327	74	184	258	339	No	1	184	185	339	No
Receptor_82	244	281	316	72	184	256	339	No	34	184	219	339	No
Receptor_83	238	255	311	73	184	258	339	No	56	184	241	339	No
Receptor_84	229	246	296	68	184	252	339	No	50	184	234	339	No
Receptor_85	222	240	282	60	184	244	339	No	42	184	226	339	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	218	235	268	50	184	234	339	No	33	184	217	339	No
Receptor_87	221	238	256	35	184	219	339	No	18	184	202	339	No
Receptor_88	224	240	233	9	184	194	339	No	(7)	184	184	339	No
Receptor_89	227	239	219	(8)	184	184	339	No	(20)	184	184	339	No
Receptor_90	226	235	218	(7)	184	184	339	No	(16)	184	184	339	No
Receptor_91	222	232	215	(6)	184	184	339	No	(17)	184	184	339	No
Receptor_92	216	226	210	(6)	184	184	339	No	(16)	184	184	339	No
Receptor_93	212	226	207	(5)	184	184	339	No	(19)	184	184	339	No
Receptor_94	209	220	203	(7)	184	184	339	No	(17)	184	184	339	No
Receptor_95	214	210	206	(7)	184	184	339	No	(4)	184	184	339	No
Receptor_96	221	213	209	(12)	184	184	339	No	(4)	184	184	339	No
Receptor_97	229	223	212	(17)	184	184	339	No	(11)	184	184	339	No
Receptor_98	235	226	215	(20)	184	184	339	No	(11)	184	184	339	No
Receptor_99	241	232	230	(12)	184	184	339	No	(3)	184	184	339	No
Receptor_100	247	262	240	(8)	184	184	339	No	(22)	184	184	339	No
Receptor_101	261	248	244	(17)	184	184	339	No	(4)	184	184	339	No
Receptor_102	274	267	235	(40)	184	184	339	No	(32)	184	184	339	No
Receptor_103	285	275	246	(38)	184	184	339	No	(28)	184	184	339	No
Receptor_104	268	252	258	(10)	184	184	339	No	5	184	190	339	No
Receptor_105	286	263	259	(26)	184	184	339	No	(4)	184	184	339	No
Receptor_106	297	271	269	(29)	184	184	339	No	(2)	184	184	339	No
Receptor_107	310	280	279	(31)	184	184	339	No	(1)	184	184	339	No
Receptor_108	314	306	294	(20)	184	184	339	No	(12)	184	184	339	No
Receptor_109	285	311	283	(3)	184	184	339	No	(29)	184	184	339	No
Receptor_110	281	286	279	(1)	184	184	339	No	(7)	184	184	339	No
Receptor_111	266	274	261	(5)	184	184	339	No	(13)	184	184	339	No
Receptor_112	249	268	290	41	184	225	339	No	22	184	206	339	No
Receptor_113	245	270	324	79	184	263	339	No	54	184	238	339	No
Receptor_114	267	251	339	72	184	256	339	No	88	184	272	339	No
Receptor_115	276	249	311	35	184	220	339	No	62	184	246	339	No
Receptor_116	248	275	271	23	184	207	339	No	(4)	184	184	339	No
Receptor_117	271	306	287	16	184	200	339	No	(18)	184	184	339	No
Receptor_118	307	334	303	(4)	184	184	339	No	(31)	184	184	339	No
Receptor_119	342	347	327	(15)	184	184	339	No	(20)	184	184	339	No
Receptor_120	352	347	351	(1)	184	184	339	No	4	184	188	339	No
Receptor_121	319	339	377	57	184	242	339	No	38	184	222	339	No
Receptor_122	353	347	394	41	184	225	339	No	47	184	232	339	No
Receptor_123	338	325	366	28	184	212	339	No	41	184	225	339	No
Receptor_124	330	302	351	21	184	205	339	No	49	184	233	339	No
Receptor_125	366	338	354	(12)	184	184	339	No	15	184	200	339	No
Receptor_126	334	324	342	9	184	193	339	No	19	184	203	339	No
Receptor_127	328	299	313	(15)	184	184	339	No	14	184	199	339	No
Receptor_128	296	269	301	5	184	189	339	No	32	184	217	339	No
Receptor_129	274	263	289	15	184	200	339	No	26	184	211	339	No
Receptor_130	268	249	283	15	184	199	339	No	34	184	218	339	No
Receptor_131	272	248	271	(1)	184	184	339	No	23	184	207	339	No
Receptor_132	256	235	256	(1)	184	184	339	No	20	184	204	339	No
Receptor_133	243	226	242	(0)	184	184	339	No	16	184	201	339	No
Receptor_134	231	218	231	0	184	184	339	No	13	184	198	339	No
Receptor_135	221	211	221	0	184	185	339	No	11	184	195	339	No
Receptor_136	212	204	213	0	184	185	339	No	8	184	193	339	No
Receptor_137	204	199	205	1	184	185	339	No	6	184	191	339	No
Receptor_138	211	201	198	(13)	184	184	339	No	(3)	184	184	339	No
Receptor_139	205	205	195	(11)	184	184	339	No	(10)	184	184	339	No
Receptor_140	195	200	196	1	184	185	339	No	(4)	184	184	339	No
Receptor_141	200	195	215	15	184	199	339	No	20	184	204	339	No
Receptor_142	198	188	216	19	184	203	339	No	28	184	213	339	No
Receptor_143	198	188	232	35	184	219	339	No	44	184	228	339	No
Receptor_144	201	191	233	31	184	216	339	No	42	184	226	339	No
Receptor_145	208	193	218	10	184	194	339	No	25	184	209	339	No
Receptor_146	203	197	213	10	184	194	339	No	16	184	200	339	No
Receptor_147	201	203	206	5	184	189	339	No	3	184	187	339	No
Receptor_148	204	216	205	1	184	186	339	No	(11)	184	184	339	No
Receptor_149	214	222	221	7	184	191	339	No	(2)	184	184	339	No
Receptor_150	216	229	225	8	184	193	339	No	(5)	184	184	339	No
Receptor_151	215	237	235	20	184	204	339	No	(1)	184	184	339	No
Receptor_152	221	245	252	30	184	215	339	No	6	184	190	339	No
Receptor_153	230	254	271	41	184	226	339	No	17	184	201	339	No
Receptor_154	217	231	255	37	184	221	339	No	23	184	207	339	No
Receptor_155	215	228	250	35	184	219	339	No	22	184	206	339	No
Receptor_156	210	224	245	34	184	219	339	No	21	184	205	339	No
Receptor_157	216	205	221	5	184	189	339	No	16	184	200	339	No
Receptor_158	224	210	230	6	184	190	339	No	20	184	205	339	No
Receptor_159	235	230	231	(5)	184	184	339	No	0	184	184	339	No
Receptor_160	240	238	249	9	184	193	339	No	11	184	195	339	No
Receptor_161	249	252	265	16	184	201	339	No	13	184	198	339	No
Receptor_162	260	255	268	8	184	192	339	No	12	184	197	339	No
Receptor_163	272	246	257	(16)	184	184	339	No	10	184	195	339	No
Receptor_164	286	251	241	(45)	184	184	339	No	(10)	184	184	339	No
Receptor_165	301	272	249	(52)	184	184	339	No	(24)	184	184	339	No
Receptor_166	317	296	270	(48)	184	184	339	No	(26)	184	184	339	No
Receptor_167	335	321	292	(43)	184	184	339	No	(29)	184	184	339	No
Receptor_168	352	347	315	(37)	184	184	339	No	(32)	184	184	339	No
Receptor_169	380	362	329	(51)	184	184	339	No	(34)	184	184	339	No
Receptor_170	368	299	378	10	184	194	339	No	79	184	263	339	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	329	310	332	4	184	188	339	No	22	184	207	339	No
Receptor_172	284	299	269	(15)	184	184	339	No	(30)	184	184	339	No
Receptor_173	259	259	321	62	184	247	339	No	62	184	246	339	No
Receptor_174	256	262	277	22	184	206	339	No	16	184	200	339	No
Receptor_175	252	262	284	32	184	216	339	No	22	184	206	339	No
Receptor_176	248	250	287	40	184	224	339	No	38	184	222	339	No
Receptor_177	242	229	285	43	184	227	339	No	57	184	241	339	No
Receptor_178	236	241	273	37	184	221	339	No	32	184	217	339	No
Receptor_179	232	254	260	28	184	212	339	No	6	184	190	339	No
Receptor_180	238	271	279	42	184	226	339	No	9	184	193	339	No
Receptor_181	256	295	307	51	184	236	339	No	13	184	197	339	No
Receptor_182	274	326	343	70	184	254	339	No	18	184	202	339	No
Receptor_183	300	349	370	70	184	255	339	No	21	184	205	339	No
Receptor_184	316	328	349	32	184	217	339	No	20	184	205	339	No
Receptor_185	301	289	314	13	184	197	339	No	25	184	209	339	No
Receptor_186	298	313	354	56	184	240	339	No	40	184	225	339	No
Receptor_187	331	366	349	18	184	202	339	No	(17)	184	184	339	No
Receptor_188	375	419	365	(10)	184	184	339	No	(54)	184	184	339	No
Receptor_189	433	366	344	(89)	184	184	339	No	(22)	184	184	339	No
Receptor_190	371	313	320	(52)	184	184	339	No	7	184	191	339	No
Receptor_191	337	292	298	(39)	184	184	339	No	6	184	190	339	No
Receptor_192	326	274	279	(47)	184	184	339	No	4	184	188	339	No
Receptor_193	315	258	261	(54)	184	184	339	No	3	184	187	339	No
Receptor_194	304	244	246	(58)	184	184	339	No	3	184	187	339	No
Receptor_195	288	230	232	(55)	184	184	339	No	2	184	186	339	No
Receptor_196	268	222	223	(45)	184	184	339	No	2	184	186	339	No
Receptor_197	250	214	215	(35)	184	184	339	No	1	184	185	339	No
Receptor_198	233	206	207	(25)	184	184	339	No	1	184	185	339	No
Receptor_199	217	198	200	(17)	184	184	339	No	1	184	186	339	No
Receptor_200	210	193	195	(16)	184	184	339	No	1	184	185	339	No
Receptor_201	210	188	189	(21)	184	184	339	No	0	184	185	339	No
Receptor_202	200	189	189	(11)	184	184	339	No	(1)	184	184	339	No
Receptor_203	183	193	193	10	184	194	339	No	1	184	185	339	No
Receptor_204	187	197	199	12	184	196	339	No	2	184	186	339	No
Receptor_205	188	211	195	8	184	192	339	No	(15)	184	184	339	No
Receptor_206	193	223	185	(9)	184	184	339	No	(38)	184	184	339	No
Receptor_207	199	229	176	(23)	184	184	339	No	(53)	184	184	339	No
Receptor_208	192	226	172	(20)	184	184	339	No	(54)	184	184	339	No
Receptor_209	187	231	178	(9)	184	184	339	No	(54)	184	184	339	No
Receptor_210	201	241	186	(15)	184	184	339	No	(55)	184	184	339	No
Receptor_211	219	249	195	(24)	184	184	339	No	(54)	184	184	339	No
Receptor_212	240	254	211	(29)	184	184	339	No	(44)	184	184	339	No
Receptor_213	262	246	225	(37)	184	184	339	No	(21)	184	184	339	No
Receptor_214	280	260	233	(47)	184	184	339	No	(26)	184	184	339	No
Receptor_215	288	267	263	(25)	184	184	339	No	(4)	184	184	339	No
Receptor_216	314	295	296	(18)	184	184	339	No	1	184	185	339	No
Receptor_217	317	293	279	(38)	184	184	339	No	(14)	184	184	339	No
Receptor_218	326	300	271	(55)	184	184	339	No	(30)	184	184	339	No
Receptor_219	343	315	284	(59)	184	184	339	No	(31)	184	184	339	No
Receptor_220	357	336	299	(59)	184	184	339	No	(37)	184	184	339	No
Receptor_221	352	376	300	(52)	184	184	339	No	(76)	184	184	339	No
Receptor_222	325	396	286	(39)	184	184	339	No	(110)	184	184	339	No
Receptor_223	334	398	288	(46)	184	184	339	No	(110)	184	184	339	No
Receptor_224	326	379	325	(1)	184	184	339	No	(55)	184	184	339	No
Receptor_225	302	335	331	29	184	213	339	No	(3)	184	184	339	No
Receptor_226	307	302	303	(4)	184	184	339	No	2	184	186	339	No
Receptor_227	342	364	359	17	184	202	339	No	(4)	184	184	339	No
Receptor_228	382	428	405	23	184	207	339	No	(23)	184	184	339	No
Receptor_229	451	519	452	2	184	186	339	No	(66)	184	184	339	No
Receptor_230	458	555	401	(57)	184	184	339	No	(154)	184	184	339	No
Receptor_231	470	561	396	(73)	184	184	339	No	(164)	184	184	339	No
Receptor_232	556	627	459	(97)	184	184	339	No	(168)	184	184	339	No
Receptor_233	674	701	544	(129)	184	184	339	No	(157)	184	184	339	No
Receptor_234	833	782	655	(177)	184	184	339	No	(126)	184	184	339	No
Receptor_235	769	906	636	(134)	184	184	339	No	(270)	184	184	339	No
Receptor_236	1,143	1,013	915	(228)	184	184	339	No	(98)	184	184	339	No
Receptor_237	936	853	872	(64)	184	184	339	No	19	184	204	339	No
Receptor_238	844	663	676	(168)	184	184	339	No	13	184	197	339	No
Receptor_239	750	622	583	(167)	184	184	339	No	(39)	184	184	339	No
Receptor_240	643	711	763	120	184	305	339	No	52	184	236	339	No
Receptor_241	567	615	695	129	184	313	339	No	80	184	264	339	No
Receptor_242	502	552	628	126	184	310	339	No	76	184	260	339	No
Receptor_243	449	496	568	119	184	303	339	No	72	184	256	339	No
Receptor_244	410	449	515	105	184	289	339	No	67	184	251	339	No
Receptor_245	364	393	452	89	184	273	339	No	59	184	243	339	No
Receptor_246	333	394	381	48	184	233	339	No	(13)	184	184	339	No
Receptor_247	383	421	421	39	184	223	339	No	1	184	185	339	No
Receptor_248	330	363	398	67	184	252	339	No	35	184	219	339	No
Receptor_249	334	348	328	(7)	184	184	339	No	(20)	184	184	339	No
Receptor_250	351	354	339	(12)	184	184	339	No	(15)	184	184	339	No
Receptor_251	321	324	324	4	184	188	339	No	1	184	185	339	No
Receptor_252	285	277	301	16	184	200	339	No	24	184	208	339	No
Receptor_253	297	270	304	7	184	191	339	No	34	184	219	339	No
Receptor_254	301	271	304	3	184	187	339	No	33	184	217	339	No
Receptor_255	298	274	296	(2)	184	184	339	No	21	184	206	339	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	327	292	334	7	184	191	339	No	42	184	226	339	No
Receptor_257	350	335	360	10	184	194	339	No	25	184	209	339	No
Receptor_258	360	330	374	14	184	198	339	No	44	184	228	339	No
Receptor_259	327	297	330	2	184	187	339	No	33	184	217	339	No
Receptor_260	288	277	292	4	184	188	339	No	14	184	199	339	No
Receptor_261	282	292	291	9	184	193	339	No	(1)	184	184	339	No
Receptor_262	289	305	295	6	184	190	339	No	(11)	184	184	339	No
Receptor_263	285	272	274	(11)	184	184	339	No	1	184	185	339	No
Receptor_264	264	243	266	2	184	186	339	No	23	184	207	339	No
Receptor_265	244	225	249	5	184	189	339	No	24	184	209	339	No
Receptor_266	227	212	230	3	184	187	339	No	18	184	203	339	No
Receptor_267	219	209	232	14	184	198	339	No	24	184	208	339	No
Receptor_268	217	223	233	16	184	200	339	No	10	184	194	339	No
Receptor_269	221	231	231	10	184	194	339	No	0	184	184	339	No
Receptor_270	250	217	231	(19)	184	184	339	No	14	184	198	339	No
Receptor_271	245	212	226	(19)	184	184	339	No	14	184	199	339	No
Receptor_272	233	217	225	(8)	184	184	339	No	8	184	192	339	No
Receptor_273	264	247	223	(41)	184	184	339	No	(24)	184	184	339	No
Receptor_274	271	252	242	(29)	184	184	339	No	(10)	184	184	339	No
Receptor_275	259	248	240	(20)	184	184	339	No	(8)	184	184	339	No
Receptor_276	249	273	247	(1)	184	184	339	No	(26)	184	184	339	No
Receptor_277	254	292	254	(0)	184	184	339	No	(38)	184	184	339	No
Receptor_278	270	285	268	(2)	184	184	339	No	(18)	184	184	339	No
Receptor_279	261	275	260	(2)	184	184	339	No	(16)	184	184	339	No
Receptor_280	257	262	252	(5)	184	184	339	No	(10)	184	184	339	No
Receptor_281	274	284	280	6	184	190	339	No	(4)	184	184	339	No
Receptor_282	274	299	289	15	184	200	339	No	(10)	184	184	339	No
Receptor_283	267	297	285	18	184	202	339	No	(12)	184	184	339	No
Receptor_284	266	285	273	7	184	191	339	No	(12)	184	184	339	No
Receptor_285	258	269	258	(1)	184	184	339	No	(11)	184	184	339	No
Receptor_286	261	280	272	11	184	195	339	No	(8)	184	184	339	No
Receptor_287	255	280	291	37	184	221	339	No	11	184	195	339	No
Receptor_288	278	277	303	25	184	209	339	No	26	184	210	339	No
Receptor_289	295	269	299	4	184	188	339	No	29	184	213	339	No
Receptor_290	268	260	286	18	184	202	339	No	26	184	210	339	No
Receptor_291	245	252	275	30	184	215	339	No	23	184	208	339	No
Receptor_292	220	244	262	42	184	226	339	No	18	184	202	339	No
Receptor_293	237	234	258	22	184	206	339	No	24	184	208	339	No
Receptor_294	260	228	253	(7)	184	184	339	No	25	184	209	339	No
Receptor_295	281	225	246	(34)	184	184	339	No	21	184	205	339	No
Receptor_296	294	223	239	(55)	184	184	339	No	16	184	200	339	No
Receptor_297	304	223	236	(68)	184	184	339	No	13	184	197	339	No
Receptor_298	310	224	247	(62)	184	184	339	No	23	184	207	339	No
Receptor_299	312	230	256	(57)	184	184	339	No	26	184	210	339	No
Receptor_300	312	233	261	(51)	184	184	339	No	28	184	213	339	No
Receptor_301	308	232	263	(45)	184	184	339	No	31	184	215	339	No
Receptor_302	303	230	263	(40)	184	184	339	No	33	184	218	339	No
Receptor_303	296	227	261	(36)	184	184	339	No	34	184	218	339	No
Receptor_304	289	225	259	(31)	184	184	339	No	34	184	218	339	No
Receptor_305	281	223	256	(25)	184	184	339	No	34	184	218	339	No
Receptor_306	272	221	254	(18)	184	184	339	No	34	184	218	339	No
Receptor_307	262	218	252	(10)	184	184	339	No	34	184	218	339	No
Receptor_308	253	214	249	(4)	184	184	339	No	34	184	218	339	No
Receptor_309	243	210	243	0	184	185	339	No	33	184	218	339	No
Receptor_310	234	211	237	3	184	187	339	No	26	184	210	339	No
Receptor_311	225	212	229	4	184	188	339	No	18	184	202	339	No
Receptor_312	217	211	226	9	184	193	339	No	15	184	199	339	No
Receptor_313	211	210	225	14	184	198	339	No	14	184	199	339	No
Receptor_314	205	209	223	18	184	202	339	No	14	184	198	339	No
Receptor_315	199	207	220	21	184	205	339	No	13	184	198	339	No
Receptor_316	194	204	217	23	184	207	339	No	13	184	197	339	No
Receptor_317	191	201	214	23	184	207	339	No	13	184	197	339	No
Receptor_318	189	199	211	22	184	206	339	No	12	184	196	339	No
Receptor_319	187	196	208	20	184	205	339	No	12	184	196	339	No
Receptor_320	186	194	205	19	184	203	339	No	11	184	196	339	No
Receptor_321	184	191	202	18	184	202	339	No	11	184	195	339	No
Receptor_322	183	188	199	16	184	200	339	No	11	184	195	339	No
Receptor_323	181	186	196	14	184	198	339	No	10	184	194	339	No
Receptor_324	179	184	192	12	184	197	339	No	8	184	192	339	No
Receptor_325	177	182	189	12	184	196	339	No	6	184	190	339	No
Receptor_326	174	181	185	11	184	195	339	No	4	184	188	339	No
Receptor_327	293	250	255	(37)	184	184	339	No	5	184	189	339	No
Maximum	1,143	1,013	915	129	184	313	339	No	88	184	272	339	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_1	12	12	13	1	26	27	57	No	1	26	27	57	No
Receptor_2	12	12	13	1	26	28	57	No	1	26	27	57	No
Receptor_3	12	12	13	1	26	28	57	No	1	26	27	57	No
Receptor_4	12	12	13	1	26	28	57	No	1	26	27	57	No
Receptor_5	12	12	13	1	26	28	57	No	1	26	27	57	No
Receptor_6	11	12	13	1	26	28	57	No	1	26	27	57	No
Receptor_7	11	12	13	1	26	28	57	No	1	26	27	57	No
Receptor_8	11	12	12	1	26	28	57	No	0	26	27	57	No
Receptor_9	11	12	12	1	26	28	57	No	0	26	27	57	No
Receptor_10	11	12	12	1	26	28	57	No	0	26	27	57	No
Receptor_11	10	11	12	1	26	27	57	No	0	26	26	57	No
Receptor_12	10	11	11	1	26	27	57	No	0	26	26	57	No
Receptor_13	10	11	11	1	26	27	57	No	0	26	26	57	No
Receptor_14	9	10	10	1	26	27	57	No	0	26	26	57	No
Receptor_15	8	9	9	1	26	27	57	No	0	26	26	57	No
Receptor_16	8	9	9	1	26	27	57	No	0	26	26	57	No
Receptor_17	7	8	8	1	26	27	57	No	0	26	26	57	No
Receptor_18	7	7	8	1	26	27	57	No	0	26	26	57	No
Receptor_19	6	7	7	1	26	27	57	No	0	26	26	57	No
Receptor_20	6	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_21	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_22	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_23	5	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_24	5	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_25	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_26	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_27	4	4	4	0	26	27	57	No	0	26	26	57	No
Receptor_28	4	4	4	0	26	27	57	No	0	26	26	57	No
Receptor_29	4	4	4	0	26	27	57	No	0	26	26	57	No
Receptor_30	4	4	4	0	26	27	57	No	0	26	26	57	No
Receptor_31	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_32	4	4	4	0	26	27	57	No	0	26	26	57	No
Receptor_33	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_34	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_35	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_36	4	5	5	0	26	27	57	No	0	26	26	57	No
Receptor_37	4	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_38	4	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_39	4	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_40	5	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_41	5	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_42	5	5	6	1	26	27	57	No	0	26	26	57	No
Receptor_43	5	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_44	5	5	5	1	26	27	57	No	0	26	26	57	No
Receptor_45	5	5	6	1	26	27	57	No	0	26	26	57	No
Receptor_46	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_47	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_48	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_49	6	6	7	1	26	27	57	No	0	26	26	57	No
Receptor_50	6	7	7	1	26	27	57	No	0	26	26	57	No
Receptor_51	6	7	7	1	26	27	57	No	0	26	26	57	No
Receptor_52	6	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_53	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_54	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_55	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_56	5	5	6	1	26	27	57	No	0	26	26	57	No
Receptor_57	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_58	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_59	5	6	6	1	26	27	57	No	0	26	26	57	No
Receptor_60	6	7	7	1	26	27	57	No	0	26	26	57	No
Receptor_61	6	7	7	1	26	27	57	No	0	26	26	57	No
Receptor_62	7	8	8	1	26	27	57	No	0	26	26	57	No
Receptor_63	7	8	8	1	26	28	57	No	0	26	27	57	No
Receptor_64	8	9	9	1	26	28	57	No	0	26	27	57	No
Receptor_65	8	9	10	1	26	28	57	No	0	26	27	57	No
Receptor_66	9	10	10	1	26	28	57	No	0	26	27	57	No
Receptor_67	9	11	11	2	26	28	57	No	0	26	27	57	No
Receptor_68	10	12	12	2	26	28	57	No	0	26	27	57	No
Receptor_69	11	13	13	2	26	28	57	No	0	26	27	57	No
Receptor_70	11	13	13	2	26	28	57	No	0	26	27	57	No
Receptor_71	12	13	13	2	26	28	57	No	0	26	27	57	No
Receptor_72	12	13	14	2	26	28	57	No	0	26	27	57	No
Receptor_73	12	13	14	2	26	28	57	No	0	26	27	57	No
Receptor_74	12	13	14	2	26	28	57	No	0	26	27	57	No
Receptor_75	12	13	14	2	26	28	57	No	0	26	27	57	No
Receptor_76	14	15	16	2	26	28	57	No	0	26	27	57	No
Receptor_77	14	15	16	2	26	28	57	No	0	26	27	57	No
Receptor_78	14	15	16	2	26	28	57	No	0	26	27	57	No
Receptor_79	15	17	18	2	26	29	57	No	0	26	27	57	No
Receptor_80	18	20	20	3	26	29	57	No	1	26	27	57	No
Receptor_81	21	23	24	3	26	29	57	No	1	26	27	57	No
Receptor_82	20	22	23	3	26	29	57	No	1	26	27	57	No
Receptor_83	19	21	21	3	26	29	57	No	1	26	27	57	No
Receptor_84	16	18	19	2	26	29	57	No	0	26	27	57	No
Receptor_85	14	16	16	2	26	28	57	No	0	26	27	57	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	13	14	14	2	26	28	57	No	0	26	27	57	No
Receptor_87	12	14	14	2	26	28	57	No	0	26	27	57	No
Receptor_88	12	14	14	2	26	28	57	No	0	26	27	57	No
Receptor_89	12	14	14	2	26	28	57	No	0	26	27	57	No
Receptor_90	11	13	13	2	26	28	57	No	0	26	27	57	No
Receptor_91	11	12	12	1	26	28	57	No	0	26	27	57	No
Receptor_92	10	11	11	1	26	28	57	No	0	26	27	57	No
Receptor_93	10	11	12	1	26	28	57	No	0	26	27	57	No
Receptor_94	11	12	12	1	26	28	57	No	0	26	27	57	No
Receptor_95	11	13	13	1	26	28	57	No	0	26	27	57	No
Receptor_96	12	13	13	1	26	28	57	No	0	26	27	57	No
Receptor_97	12	14	14	2	26	28	57	No	0	26	27	57	No
Receptor_98	14	15	15	2	26	28	57	No	0	26	27	57	No
Receptor_99	15	16	17	2	26	28	57	No	0	26	27	57	No
Receptor_100	16	18	19	2	26	28	57	No	0	26	27	57	No
Receptor_101	17	19	19	2	26	28	57	No	0	26	27	57	No
Receptor_102	18	20	20	2	26	29	57	No	0	26	27	57	No
Receptor_103	19	21	21	2	26	29	57	No	0	26	27	57	No
Receptor_104	20	21	22	2	26	29	57	No	0	26	27	57	No
Receptor_105	20	22	23	2	26	29	57	No	0	26	27	57	No
Receptor_106	22	24	24	3	26	29	57	No	0	26	27	57	No
Receptor_107	24	26	26	3	26	29	57	No	0	26	27	57	No
Receptor_108	24	26	27	3	26	29	57	No	0	26	27	57	No
Receptor_109	23	26	26	3	26	29	57	No	0	26	27	57	No
Receptor_110	23	25	25	3	26	29	57	No	0	26	27	57	No
Receptor_111	21	23	23	2	26	29	57	No	0	26	27	57	No
Receptor_112	22	24	24	2	26	29	57	No	0	26	27	57	No
Receptor_113	22	24	25	2	26	29	57	No	0	26	27	57	No
Receptor_114	23	25	25	2	26	29	57	No	0	26	27	57	No
Receptor_115	23	25	26	2	26	29	57	No	0	26	27	57	No
Receptor_116	24	26	26	2	26	29	57	No	0	26	27	57	No
Receptor_117	26	28	28	2	26	29	57	No	0	26	27	57	No
Receptor_118	28	31	31	3	26	29	57	No	0	26	27	57	No
Receptor_119	32	34	35	3	26	29	57	No	0	26	27	57	No
Receptor_120	35	38	39	3	26	30	57	No	0	26	27	57	No
Receptor_121	37	41	41	4	26	30	57	No	0	26	27	57	No
Receptor_122	39	42	43	4	26	30	57	No	1	26	27	57	No
Receptor_123	38	41	41	3	26	30	57	No	0	26	27	57	No
Receptor_124	37	39	40	3	26	29	57	No	0	26	27	57	No
Receptor_125	38	41	41	3	26	29	57	No	0	26	27	57	No
Receptor_126	37	39	39	2	26	29	57	No	0	26	27	57	No
Receptor_127	35	37	37	2	26	29	57	No	0	26	27	57	No
Receptor_128	32	34	34	2	26	29	57	No	0	26	27	57	No
Receptor_129	31	33	33	2	26	29	57	No	0	26	27	57	No
Receptor_130	30	32	32	2	26	28	57	No	0	26	27	57	No
Receptor_131	29	31	31	2	26	28	57	No	0	26	27	57	No
Receptor_132	28	30	30	2	26	28	57	No	0	26	26	57	No
Receptor_133	27	28	28	2	26	28	57	No	0	26	26	57	No
Receptor_134	25	27	27	2	26	28	57	No	0	26	26	57	No
Receptor_135	24	26	26	2	26	28	57	No	0	26	26	57	No
Receptor_136	23	25	25	1	26	28	57	No	0	26	26	57	No
Receptor_137	23	24	24	1	26	28	57	No	0	26	26	57	No
Receptor_138	23	24	24	1	26	28	57	No	0	26	26	57	No
Receptor_139	24	25	25	1	26	28	57	No	0	26	26	57	No
Receptor_140	23	24	25	1	26	27	57	No	0	26	26	57	No
Receptor_141	24	25	25	1	26	27	57	No	0	26	26	57	No
Receptor_142	24	25	25	1	26	27	57	No	0	26	26	57	No
Receptor_143	24	25	25	1	26	27	57	No	(0)	26	26	57	No
Receptor_144	25	25	25	1	26	27	57	No	(0)	26	26	57	No
Receptor_145	25	26	25	1	26	27	57	No	(0)	26	26	57	No
Receptor_146	25	25	25	1	26	27	57	No	(0)	26	26	57	No
Receptor_147	24	25	25	1	26	27	57	No	(0)	26	26	57	No
Receptor_148	24	25	24	0	26	27	57	No	(0)	26	26	57	No
Receptor_149	24	25	25	0	26	27	57	No	(0)	26	26	57	No
Receptor_150	25	26	25	0	26	27	57	No	(0)	26	26	57	No
Receptor_151	26	26	26	0	26	27	57	No	(0)	26	26	57	No
Receptor_152	27	27	27	0	26	27	57	No	(0)	26	26	57	No
Receptor_153	27	28	28	0	26	27	57	No	(0)	26	26	57	No
Receptor_154	28	28	28	0	26	27	57	No	(0)	26	26	57	No
Receptor_155	27	28	28	0	26	27	57	No	(0)	26	26	57	No
Receptor_156	27	27	27	0	26	27	57	No	(0)	26	26	57	No
Receptor_157	27	27	27	0	26	26	57	No	(0)	26	26	57	No
Receptor_158	28	28	28	0	26	26	57	No	(0)	26	26	57	No
Receptor_159	28	29	28	0	26	26	57	No	(0)	26	26	57	No
Receptor_160	29	29	29	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_161	29	29	29	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_162	29	29	29	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_163	30	30	30	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_164	31	30	30	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_165	31	31	31	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_166	32	32	32	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_167	33	33	33	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_168	35	35	34	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_169	37	36	36	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_170	36	35	35	(1)	26	26	57	No	(0)	26	26	57	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	36	35	35	(1)	26	26	57	No	(1)	26	26	57	No
Receptor_172	36	36	35	(1)	26	26	57	No	(1)	26	26	57	No
Receptor_173	39	38	37	(2)	26	26	57	No	(1)	26	26	57	No
Receptor_174	38	37	37	(2)	26	26	57	No	(1)	26	26	57	No
Receptor_175	38	37	36	(2)	26	26	57	No	(1)	26	26	57	No
Receptor_176	37	36	36	(1)	26	26	57	No	(1)	26	26	57	No
Receptor_177	36	36	35	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_178	36	35	35	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_179	35	35	34	(1)	26	26	57	No	(0)	26	26	57	No
Receptor_180	34	34	34	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_181	34	34	34	(0)	26	26	57	No	(0)	26	26	57	No
Receptor_182	33	34	33	0	26	27	57	No	(0)	26	26	57	No
Receptor_183	33	33	33	0	26	27	57	No	(0)	26	26	57	No
Receptor_184	32	33	33	1	26	27	57	No	(0)	26	26	57	No
Receptor_185	32	33	33	1	26	27	57	No	(0)	26	26	57	No
Receptor_186	32	33	33	1	26	27	57	No	(0)	26	26	57	No
Receptor_187	32	33	33	1	26	27	57	No	(0)	26	26	57	No
Receptor_188	32	33	33	1	26	27	57	No	(0)	26	26	57	No
Receptor_189	31	33	32	1	26	28	57	No	(0)	26	26	57	No
Receptor_190	31	33	32	1	26	28	57	No	(0)	26	26	57	No
Receptor_191	29	31	30	1	26	28	57	No	(0)	26	26	57	No
Receptor_192	28	29	29	1	26	27	57	No	(0)	26	26	57	No
Receptor_193	27	28	28	1	26	27	57	No	(0)	26	26	57	No
Receptor_194	26	27	27	1	26	27	57	No	(0)	26	26	57	No
Receptor_195	25	26	26	1	26	27	57	No	(0)	26	26	57	No
Receptor_196	24	25	25	1	26	27	57	No	(0)	26	26	57	No
Receptor_197	24	24	24	1	26	27	57	No	(0)	26	26	57	No
Receptor_198	23	24	23	1	26	27	57	No	(0)	26	26	57	No
Receptor_199	22	23	23	1	26	27	57	No	(0)	26	26	57	No
Receptor_200	22	22	22	1	26	27	57	No	(0)	26	26	57	No
Receptor_201	21	22	22	1	26	27	57	No	(0)	26	26	57	No
Receptor_202	21	22	22	1	26	27	57	No	(0)	26	26	57	No
Receptor_203	21	21	21	1	26	27	57	No	(0)	26	26	57	No
Receptor_204	20	21	21	1	26	27	57	No	(0)	26	26	57	No
Receptor_205	20	20	20	1	26	27	57	No	(0)	26	26	57	No
Receptor_206	19	20	20	1	26	27	57	No	(0)	26	26	57	No
Receptor_207	19	20	20	1	26	27	57	No	(0)	26	26	57	No
Receptor_208	18	19	19	1	26	27	57	No	(0)	26	26	57	No
Receptor_209	18	19	19	1	26	27	57	No	(0)	26	26	57	No
Receptor_210	19	20	19	1	26	27	57	No	(0)	26	26	57	No
Receptor_211	19	20	20	1	26	27	57	No	(0)	26	26	57	No
Receptor_212	19	20	20	1	26	27	57	No	(0)	26	26	57	No
Receptor_213	20	21	21	1	26	27	57	No	(0)	26	26	57	No
Receptor_214	20	21	21	1	26	27	57	No	(0)	26	26	57	No
Receptor_215	21	22	22	1	26	27	57	No	(0)	26	26	57	No
Receptor_216	21	22	22	1	26	28	57	No	(0)	26	26	57	No
Receptor_217	22	24	24	1	26	28	57	No	(0)	26	26	57	No
Receptor_218	23	25	24	1	26	28	57	No	(0)	26	26	57	No
Receptor_219	24	26	26	1	26	28	57	No	(0)	26	26	57	No
Receptor_220	25	27	27	1	26	28	57	No	(0)	26	26	57	No
Receptor_221	27	28	28	1	26	28	57	No	(0)	26	26	57	No
Receptor_222	28	30	29	2	26	28	57	No	(0)	26	26	57	No
Receptor_223	29	30	30	1	26	28	57	No	(0)	26	26	57	No
Receptor_224	29	31	31	1	26	28	57	No	(0)	26	26	57	No
Receptor_225	30	32	32	1	26	28	57	No	(0)	26	26	57	No
Receptor_226	29	30	30	1	26	28	57	No	(0)	26	26	57	No
Receptor_227	32	34	34	2	26	28	57	No	(1)	26	26	57	No
Receptor_228	35	38	37	2	26	28	57	No	(1)	26	26	57	No
Receptor_229	39	42	41	2	26	28	57	No	(1)	26	26	57	No
Receptor_230	38	41	40	2	26	29	57	No	(1)	26	26	57	No
Receptor_231	37	40	40	2	26	29	57	No	(1)	26	26	57	No
Receptor_232	41	45	44	3	26	29	57	No	(1)	26	26	57	No
Receptor_233	47	51	50	3	26	30	57	No	(1)	26	26	57	No
Receptor_234	53	58	57	4	26	30	57	No	(1)	26	26	57	No
Receptor_235	56	61	60	4	26	30	57	No	(1)	26	26	57	No
Receptor_236	65	71	70	5	26	31	57	No	(1)	26	26	57	No
Receptor_237	56	61	60	4	26	30	57	No	(1)	26	26	57	No
Receptor_238	45	50	49	3	26	30	57	No	(1)	26	26	57	No
Receptor_239	37	41	40	3	26	29	57	No	(1)	26	26	57	No
Receptor_240	33	36	35	2	26	29	57	No	(1)	26	26	57	No
Receptor_241	26	29	28	2	26	28	57	No	(0)	26	26	57	No
Receptor_242	22	24	23	1	26	28	57	No	(0)	26	26	57	No
Receptor_243	19	20	20	1	26	27	57	No	(0)	26	26	57	No
Receptor_244	17	18	17	1	26	27	57	No	(0)	26	26	57	No
Receptor_245	14	15	15	1	26	27	57	No	(0)	26	26	57	No
Receptor_246	12	13	13	1	26	27	57	No	(0)	26	26	57	No
Receptor_247	10	11	11	0	26	27	57	No	(0)	26	26	57	No
Receptor_248	9	9	9	0	26	27	57	No	(0)	26	26	57	No
Receptor_249	8	8	8	0	26	27	57	No	(0)	26	26	57	No
Receptor_250	7	7	7	0	26	26	57	No	(0)	26	26	57	No
Receptor_251	6	6	6	0	26	26	57	No	(0)	26	26	57	No
Receptor_252	6	6	6	0	26	26	57	No	(0)	26	26	57	No
Receptor_253	6	6	6	0	26	26	57	No	(0)	26	26	57	No
Receptor_254	6	6	6	0	26	26	57	No	(0)	26	26	57	No
Receptor_255	6	6	6	0	26	26	57	No	(0)	26	26	57	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	7	7	7	0	26	26	57	No	(0)	26	26	57	No
Receptor_257	8	8	8	0	26	26	57	No	(0)	26	26	57	No
Receptor_258	8	8	8	0	26	26	57	No	(0)	26	26	57	No
Receptor_259	7	7	7	0	26	26	57	No	(0)	26	26	57	No
Receptor_260	7	7	7	0	26	26	57	No	(0)	26	26	57	No
Receptor_261	7	7	7	0	26	26	57	No	(0)	26	26	57	No
Receptor_262	7	7	7	0	26	26	57	No	(0)	26	26	57	No
Receptor_263	6	7	7	0	26	26	57	No	0	26	26	57	No
Receptor_264	6	6	6	0	26	26	57	No	0	26	26	57	No
Receptor_265	5	5	6	0	26	26	57	No	0	26	26	57	No
Receptor_266	5	5	5	0	26	26	57	No	0	26	26	57	No
Receptor_267	5	5	5	0	26	26	57	No	0	26	26	57	No
Receptor_268	6	6	6	0	26	26	57	No	0	26	26	57	No
Receptor_269	6	6	6	0	26	26	57	No	0	26	26	57	No
Receptor_270	6	6	7	0	26	27	57	No	0	26	26	57	No
Receptor_271	7	7	7	0	26	27	57	No	0	26	26	57	No
Receptor_272	8	8	8	0	26	26	57	No	0	26	26	57	No
Receptor_273	9	9	9	0	26	26	57	No	0	26	27	57	No
Receptor_274	10	10	10	(0)	26	26	57	No	0	26	27	57	No
Receptor_275	12	11	12	(0)	26	26	57	No	0	26	27	57	No
Receptor_276	12	12	12	(0)	26	26	57	No	0	26	27	57	No
Receptor_277	13	13	13	(0)	26	26	57	No	0	26	27	57	No
Receptor_278	14	14	14	(0)	26	26	57	No	0	26	27	57	No
Receptor_279	15	15	15	(0)	26	26	57	No	0	26	26	57	No
Receptor_280	16	16	16	(0)	26	26	57	No	0	26	27	57	No
Receptor_281	17	17	17	(0)	26	26	57	No	0	26	27	57	No
Receptor_282	18	18	18	(0)	26	26	57	No	0	26	27	57	No
Receptor_283	19	19	19	(0)	26	26	57	No	0	26	27	57	No
Receptor_284	20	19	20	(0)	26	26	57	No	0	26	27	57	No
Receptor_285	20	20	20	(0)	26	26	57	No	0	26	27	57	No
Receptor_286	24	23	23	(1)	26	26	57	No	1	26	27	57	No
Receptor_287	25	24	25	(1)	26	26	57	No	1	26	27	57	No
Receptor_288	27	26	27	(1)	26	26	57	No	1	26	27	57	No
Receptor_289	28	26	27	(1)	26	26	57	No	1	26	27	57	No
Receptor_290	25	24	25	(0)	26	26	57	No	1	26	27	57	No
Receptor_291	23	23	23	(0)	26	26	57	No	1	26	27	57	No
Receptor_292	22	21	21	(0)	26	26	57	No	1	26	27	57	No
Receptor_293	22	21	22	(0)	26	26	57	No	1	26	27	57	No
Receptor_294	22	21	22	(0)	26	26	57	No	1	26	27	57	No
Receptor_295	22	21	22	0	26	26	57	No	1	26	27	57	No
Receptor_296	22	21	22	0	26	27	57	No	1	26	27	57	No
Receptor_297	22	21	23	0	26	27	57	No	1	26	28	57	No
Receptor_298	22	21	23	0	26	27	57	No	1	26	28	57	No
Receptor_299	22	21	23	1	26	27	57	No	1	26	28	57	No
Receptor_300	22	21	22	1	26	27	57	No	1	26	28	57	No
Receptor_301	21	20	22	1	26	27	57	No	1	26	28	57	No
Receptor_302	21	20	22	1	26	27	57	No	2	26	28	57	No
Receptor_303	21	20	22	1	26	27	57	No	2	26	28	57	No
Receptor_304	21	20	22	1	26	27	57	No	2	26	28	57	No
Receptor_305	20	20	21	1	26	27	57	No	2	26	28	57	No
Receptor_306	20	20	21	1	26	27	57	No	2	26	28	57	No
Receptor_307	20	19	21	1	26	27	57	No	2	26	28	57	No
Receptor_308	20	19	21	1	26	28	57	No	2	26	28	57	No
Receptor_309	19	19	21	1	26	28	57	No	2	26	28	57	No
Receptor_310	19	18	20	1	26	28	57	No	2	26	28	57	No
Receptor_311	18	18	20	1	26	28	57	No	2	26	28	57	No
Receptor_312	18	18	19	1	26	28	57	No	2	26	28	57	No
Receptor_313	18	17	19	1	26	28	57	No	1	26	28	57	No
Receptor_314	17	17	18	1	26	28	57	No	1	26	28	57	No
Receptor_315	17	16	18	1	26	28	57	No	1	26	28	57	No
Receptor_316	16	16	17	1	26	27	57	No	1	26	28	57	No
Receptor_317	16	16	17	1	26	27	57	No	1	26	27	57	No
Receptor_318	15	15	16	1	26	27	57	No	1	26	27	57	No
Receptor_319	15	15	16	1	26	27	57	No	1	26	27	57	No
Receptor_320	15	15	16	1	26	27	57	No	1	26	27	57	No
Receptor_321	14	14	15	1	26	27	57	No	1	26	27	57	No
Receptor_322	14	14	15	1	26	27	57	No	1	26	27	57	No
Receptor_323	14	14	15	1	26	27	57	No	1	26	27	57	No
Receptor_324	13	13	14	1	26	27	57	No	1	26	27	57	No
Receptor_325	13	13	14	1	26	27	57	No	1	26	27	57	No
Receptor_326	12	13	14	1	26	27	57	No	1	26	27	57	No
Receptor_327	49	47	46	(3)	26	26	57	No	(1)	26	26	57	No
Maximum	65	71	70	5	26	31	57	No	2	26	28	57	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
	2012	2019 NO	2019	Project	Ambient	Total	Threshold	Exceeds?		Project	Ambient	Total	Threshold	Exceeds?	
	Baseline	Project	Project												
Receptor_1	54	49	58	4	21	25	196	No		9	21	30	196	No	
Receptor_2	55	51	56	1	21	22	196	No		5	21	26	196	No	
Receptor_3	57	52	57	0	21	21	196	No		5	21	25	196	No	
Receptor_4	56	52	61	5	21	25	196	No		8	21	29	196	No	
Receptor_5	57	54	65	8	21	29	196	No		11	21	32	196	No	
Receptor_6	57	54	65	8	21	29	196	No		10	21	31	196	No	
Receptor_7	57	54	64	7	21	28	196	No		10	21	31	196	No	
Receptor_8	52	56	63	11	21	32	196	No		7	21	28	196	No	
Receptor_9	55	57	62	7	21	28	196	No		6	21	26	196	No	
Receptor_10	56	58	66	10	21	31	196	No		7	21	28	196	No	
Receptor_11	56	61	64	8	21	29	196	No		3	21	24	196	No	
Receptor_12	55	63	60	5	21	26	196	No		(3)	21	21	196	No	
Receptor_13	56	60	64	9	21	30	196	No		4	21	25	196	No	
Receptor_14	57	58	63	7	21	28	196	No		5	21	26	196	No	
Receptor_15	57	61	58	1	21	22	196	No		(3)	21	21	196	No	
Receptor_16	55	64	58	2	21	23	196	No		(6)	21	21	196	No	
Receptor_17	55	68	58	3	21	24	196	No		(10)	21	21	196	No	
Receptor_18	53	65	56	3	21	23	196	No		(9)	21	21	196	No	
Receptor_19	56	61	54	(2)	21	21	196	No		(7)	21	21	196	No	
Receptor_20	58	62	55	(3)	21	21	196	No		(6)	21	21	196	No	
Receptor_21	56	60	53	(2)	21	21	196	No		(7)	21	21	196	No	
Receptor_22	55	60	54	(1)	21	21	196	No		(6)	21	21	196	No	
Receptor_23	57	57	55	(1)	21	21	196	No		(2)	21	21	196	No	
Receptor_24	59	58	55	(4)	21	21	196	No		(3)	21	21	196	No	
Receptor_25	59	57	56	(3)	21	21	196	No		(1)	21	21	196	No	
Receptor_26	56	55	55	(1)	21	21	196	No		(0)	21	21	196	No	
Receptor_27	57	55	53	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_28	56	54	53	(3)	21	21	196	No		(1)	21	21	196	No	
Receptor_29	58	56	54	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_30	59	57	55	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_31	60	59	57	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_32	61	61	59	(2)	21	21	196	No		(3)	21	21	196	No	
Receptor_33	62	63	60	(2)	21	21	196	No		(3)	21	21	196	No	
Receptor_34	64	64	62	(2)	21	21	196	No		(3)	21	21	196	No	
Receptor_35	65	65	66	1	21	22	196	No		0	21	21	196	No	
Receptor_36	64	68	70	5	21	26	196	No		1	21	22	196	No	
Receptor_37	67	68	73	6	21	27	196	No		5	21	26	196	No	
Receptor_38	68	70	72	4	21	25	196	No		2	21	23	196	No	
Receptor_39	71	76	70	(2)	21	21	196	No		(7)	21	21	196	No	
Receptor_40	73	80	73	(0)	21	21	196	No		(7)	21	21	196	No	
Receptor_41	78	82	76	(2)	21	21	196	No		(6)	21	21	196	No	
Receptor_42	83	86	81	(2)	21	21	196	No		(6)	21	21	196	No	
Receptor_43	84	87	80	(4)	21	21	196	No		(8)	21	21	196	No	
Receptor_44	86	88	77	(9)	21	21	196	No		(11)	21	21	196	No	
Receptor_45	86	89	76	(10)	21	21	196	No		(13)	21	21	196	No	
Receptor_46	90	94	82	(8)	21	21	196	No		(12)	21	21	196	No	
Receptor_47	93	99	90	(3)	21	21	196	No		(9)	21	21	196	No	
Receptor_48	94	100	86	(8)	21	21	196	No		(13)	21	21	196	No	
Receptor_49	97	104	91	(6)	21	21	196	No		(12)	21	21	196	No	
Receptor_50	101	106	92	(9)	21	21	196	No		(14)	21	21	196	No	
Receptor_51	97	102	88	(8)	21	21	196	No		(14)	21	21	196	No	
Receptor_52	92	98	83	(9)	21	21	196	No		(15)	21	21	196	No	
Receptor_53	85	92	81	(4)	21	21	196	No		(11)	21	21	196	No	
Receptor_54	82	85	76	(6)	21	21	196	No		(9)	21	21	196	No	
Receptor_55	79	82	74	(6)	21	21	196	No		(9)	21	21	196	No	
Receptor_56	79	79	74	(5)	21	21	196	No		(5)	21	21	196	No	
Receptor_57	83	81	77	(6)	21	21	196	No		(4)	21	21	196	No	
Receptor_58	87	84	80	(7)	21	21	196	No		(5)	21	21	196	No	
Receptor_59	86	90	81	(6)	21	21	196	No		(9)	21	21	196	No	
Receptor_60	91	93	86	(4)	21	21	196	No		(6)	21	21	196	No	
Receptor_61	96	96	91	(6)	21	21	196	No		(5)	21	21	196	No	
Receptor_62	102	101	93	(9)	21	21	196	No		(7)	21	21	196	No	
Receptor_63	107	107	100	(8)	21	21	196	No		(7)	21	21	196	No	
Receptor_64	110	113	103	(7)	21	21	196	No		(10)	21	21	196	No	
Receptor_65	108	113	108	(1)	21	21	196	No		(6)	21	21	196	No	
Receptor_66	105	116	112	7	21	28	196	No		(4)	21	21	196	No	
Receptor_67	109	113	119	11	21	31	196	No		6	21	27	196	No	
Receptor_68	112	117	117	5	21	26	196	No		0	21	21	196	No	
Receptor_69	120	124	124	4	21	25	196	No		(0)	21	21	196	No	
Receptor_70	115	123	121	6	21	26	196	No		(2)	21	21	196	No	
Receptor_71	109	118	111	1	21	22	196	No		(7)	21	21	196	No	
Receptor_72	105	113	108	2	21	23	196	No		(6)	21	21	196	No	
Receptor_73	109	112	103	(6)	21	21	196	No		(9)	21	21	196	No	
Receptor_74	113	108	89	(24)	21	21	196	No		(19)	21	21	196	No	
Receptor_75	112	111	88	(23)	21	21	196	No		(23)	21	21	196	No	
Receptor_76	119	118	90	(28)	21	21	196	No		(28)	21	21	196	No	
Receptor_77	110	111	89	(22)	21	21	196	No		(22)	21	21	196	No	
Receptor_78	118	112	87	(32)	21	21	196	No		(25)	21	21	196	No	
Receptor_79	130	122	93	(37)	21	21	196	No		(29)	21	21	196	No	
Receptor_80	142	131	98	(44)	21	21	196	No		(33)	21	21	196	No	
Receptor_81	157	146	100	(56)	21	21	196	No		(46)	21	21	196	No	
Receptor_82	145	138	97	(48)	21	21	196	No		(41)	21	21	196	No	
Receptor_83	130	140	94	(36)	21	21	196	No		(46)	21	21	196	No	
Receptor_84	129	122	91	(38)	21	21	196	No		(32)	21	21	196	No	
Receptor_85	123	114	86	(37)	21	21	196	No		(28)	21	21	196	No	

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?		Project		Total	Threshold	Exceeds?	
	Baseline	Project	Project	Increase	Ambient					Increase	Ambient				
Receptor_86	114	105	76	(38)	21	21	196	No		(29)	21	21	196	No	
Receptor_87	111	104	75	(37)	21	21	196	No		(29)	21	21	196	No	
Receptor_88	104	100	74	(30)	21	21	196	No		(26)	21	21	196	No	
Receptor_89	95	105	74	(21)	21	21	196	No		(31)	21	21	196	No	
Receptor_90	90	99	70	(19)	21	21	196	No		(28)	21	21	196	No	
Receptor_91	84	93	67	(17)	21	21	196	No		(26)	21	21	196	No	
Receptor_92	79	88	65	(15)	21	21	196	No		(24)	21	21	196	No	
Receptor_93	77	87	64	(13)	21	21	196	No		(23)	21	21	196	No	
Receptor_94	81	84	62	(19)	21	21	196	No		(22)	21	21	196	No	
Receptor_95	79	80	63	(16)	21	21	196	No		(18)	21	21	196	No	
Receptor_96	79	79	64	(15)	21	21	196	No		(16)	21	21	196	No	
Receptor_97	78	77	66	(12)	21	21	196	No		(11)	21	21	196	No	
Receptor_98	83	81	73	(10)	21	21	196	No		(9)	21	21	196	No	
Receptor_99	88	88	80	(7)	21	21	196	No		(8)	21	21	196	No	
Receptor_100	93	96	87	(6)	21	21	196	No		(9)	21	21	196	No	
Receptor_101	91	95	88	(3)	21	21	196	No		(7)	21	21	196	No	
Receptor_102	93	95	88	(5)	21	21	196	No		(7)	21	21	196	No	
Receptor_103	94	95	91	(3)	21	21	196	No		(5)	21	21	196	No	
Receptor_104	96	93	94	(2)	21	21	196	No		1	21	22	196	No	
Receptor_105	97	92	98	1	21	22	196	No		6	21	27	196	No	
Receptor_106	101	96	104	3	21	24	196	No		8	21	29	196	No	
Receptor_107	108	102	111	2	21	23	196	No		9	21	30	196	No	
Receptor_108	106	103	113	6	21	27	196	No		9	21	30	196	No	
Receptor_109	98	99	111	13	21	34	196	No		12	21	33	196	No	
Receptor_110	97	93	103	6	21	27	196	No		10	21	31	196	No	
Receptor_111	90	89	97	7	21	28	196	No		8	21	29	196	No	
Receptor_112	92	90	99	8	21	29	196	No		10	21	31	196	No	
Receptor_113	93	93	105	12	21	33	196	No		12	21	33	196	No	
Receptor_114	91	90	99	8	21	28	196	No		8	21	29	196	No	
Receptor_115	94	90	92	(1)	21	21	196	No		3	21	23	196	No	
Receptor_116	89	89	90	2	21	23	196	No		1	21	22	196	No	
Receptor_117	97	98	95	(2)	21	21	196	No		(3)	21	21	196	No	
Receptor_118	103	110	106	3	21	24	196	No		(5)	21	21	196	No	
Receptor_119	113	126	118	5	21	26	196	No		(8)	21	21	196	No	
Receptor_120	130	141	129	(1)	21	21	196	No		(12)	21	21	196	No	
Receptor_121	135	142	132	(3)	21	21	196	No		(10)	21	21	196	No	
Receptor_122	146	133	127	(19)	21	21	196	No		(6)	21	21	196	No	
Receptor_123	140	130	121	(20)	21	21	196	No		(9)	21	21	196	No	
Receptor_124	132	129	119	(13)	21	21	196	No		(10)	21	21	196	No	
Receptor_125	131	133	128	(3)	21	21	196	No		(6)	21	21	196	No	
Receptor_126	123	125	120	(3)	21	21	196	No		(5)	21	21	196	No	
Receptor_127	116	115	112	(4)	21	21	196	No		(3)	21	21	196	No	
Receptor_128	113	107	104	(9)	21	21	196	No		(3)	21	21	196	No	
Receptor_129	107	100	98	(8)	21	21	196	No		(1)	21	21	196	No	
Receptor_130	105	99	98	(7)	21	21	196	No		(1)	21	21	196	No	
Receptor_131	99	93	92	(8)	21	21	196	No		(1)	21	21	196	No	
Receptor_132	92	86	85	(7)	21	21	196	No		(1)	21	21	196	No	
Receptor_133	86	80	80	(7)	21	21	196	No		(0)	21	21	196	No	
Receptor_134	81	75	75	(6)	21	21	196	No		(0)	21	21	196	No	
Receptor_135	76	70	71	(6)	21	21	196	No		0	21	21	196	No	
Receptor_136	72	66	67	(5)	21	21	196	No		1	21	21	196	No	
Receptor_137	68	63	63	(5)	21	21	196	No		1	21	22	196	No	
Receptor_138	63	64	63	(0)	21	21	196	No		(1)	21	21	196	No	
Receptor_139	62	67	63	1	21	22	196	No		(3)	21	21	196	No	
Receptor_140	61	62	61	(0)	21	21	196	No		(2)	21	21	196	No	
Receptor_141	63	60	60	(3)	21	21	196	No		(0)	21	21	196	No	
Receptor_142	59	57	56	(2)	21	21	196	No		(1)	21	21	196	No	
Receptor_143	60	58	55	(5)	21	21	196	No		(3)	21	21	196	No	
Receptor_144	61	56	58	(4)	21	21	196	No		2	21	23	196	No	
Receptor_145	70	59	61	(9)	21	21	196	No		2	21	23	196	No	
Receptor_146	67	57	58	(8)	21	21	196	No		2	21	23	196	No	
Receptor_147	65	54	56	(10)	21	21	196	No		1	21	22	196	No	
Receptor_148	65	55	54	(11)	21	21	196	No		(1)	21	21	196	No	
Receptor_149	67	59	57	(10)	21	21	196	No		(2)	21	21	196	No	
Receptor_150	64	60	55	(9)	21	21	196	No		(5)	21	21	196	No	
Receptor_151	59	61	54	(5)	21	21	196	No		(7)	21	21	196	No	
Receptor_152	62	62	55	(7)	21	21	196	No		(7)	21	21	196	No	
Receptor_153	66	64	59	(7)	21	21	196	No		(5)	21	21	196	No	
Receptor_154	66	62	57	(8)	21	21	196	No		(5)	21	21	196	No	
Receptor_155	64	61	57	(8)	21	21	196	No		(5)	21	21	196	No	
Receptor_156	61	59	56	(6)	21	21	196	No		(3)	21	21	196	No	
Receptor_157	65	62	60	(5)	21	21	196	No		(2)	21	21	196	No	
Receptor_158	70	64	59	(11)	21	21	196	No		(5)	21	21	196	No	
Receptor_159	74	68	62	(12)	21	21	196	No		(6)	21	21	196	No	
Receptor_160	77	72	66	(12)	21	21	196	No		(6)	21	21	196	No	
Receptor_161	81	77	69	(12)	21	21	196	No		(7)	21	21	196	No	
Receptor_162	87	82	74	(13)	21	21	196	No		(8)	21	21	196	No	
Receptor_163	93	88	79	(14)	21	21	196	No		(9)	21	21	196	No	
Receptor_164	100	95	84	(16)	21	21	196	No		(11)	21	21	196	No	
Receptor_165	108	103	91	(16)	21	21	196	No		(11)	21	21	196	No	
Receptor_166	117	112	99	(18)	21	21	196	No		(13)	21	21	196	No	
Receptor_167	127	122	107	(19)	21	21	196	No		(15)	21	21	196	No	
Receptor_168	139	134	117	(22)	21	21	196	No		(17)	21	21	196	No	
Receptor_169	147	142	124	(23)	21	21	196	No		(18)	21	21	196	No	
Receptor_170	148	129	120	(27)	21	21	196	No		(8)	21	21	196	No	

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Max Concentrations (ug/m3)				2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
Receptor ID	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?		Project		Total	Threshold	Exceeds?	
	Baseline	Project	Project	Increase	Ambient					Increase	Ambient				
Receptor_171	135	111	112	(23)	21	21	196	No		1	21	22	196	No	
Receptor_172	118	107	117	(2)	21	21	196	No		10	21	31	196	No	
Receptor_173	119	101	107	(11)	21	21	196	No		6	21	27	196	No	
Receptor_174	115	99	104	(11)	21	21	196	No		6	21	27	196	No	
Receptor_175	106	95	99	(7)	21	21	196	No		4	21	25	196	No	
Receptor_176	99	87	93	(6)	21	21	196	No		6	21	26	196	No	
Receptor_177	97	84	88	(9)	21	21	196	No		4	21	25	196	No	
Receptor_178	91	81	86	(5)	21	21	196	No		5	21	26	196	No	
Receptor_179	87	78	81	(6)	21	21	196	No		3	21	24	196	No	
Receptor_180	85	74	76	(9)	21	21	196	No		2	21	23	196	No	
Receptor_181	86	73	73	(14)	21	21	196	No		(1)	21	21	196	No	
Receptor_182	83	75	73	(9)	21	21	196	No		(1)	21	21	196	No	
Receptor_183	82	76	72	(10)	21	21	196	No		(4)	21	21	196	No	
Receptor_184	82	79	71	(11)	21	21	196	No		(8)	21	21	196	No	
Receptor_185	81	79	75	(6)	21	21	196	No		(4)	21	21	196	No	
Receptor_186	85	86	81	(4)	21	21	196	No		(5)	21	21	196	No	
Receptor_187	89	86	87	(2)	21	21	196	No		1	21	22	196	No	
Receptor_188	84	81	80	(4)	21	21	196	No		(0)	21	21	196	No	
Receptor_189	86	87	79	(7)	21	21	196	No		(8)	21	21	196	No	
Receptor_190	88	87	77	(10)	21	21	196	No		(10)	21	21	196	No	
Receptor_191	79	80	71	(9)	21	21	196	No		(9)	21	21	196	No	
Receptor_192	75	73	65	(11)	21	21	196	No		(9)	21	21	196	No	
Receptor_193	72	67	60	(12)	21	21	196	No		(7)	21	21	196	No	
Receptor_194	66	61	56	(10)	21	21	196	No		(5)	21	21	196	No	
Receptor_195	61	57	51	(10)	21	21	196	No		(7)	21	21	196	No	
Receptor_196	57	54	48	(9)	21	21	196	No		(6)	21	21	196	No	
Receptor_197	54	51	46	(7)	21	21	196	No		(5)	21	21	196	No	
Receptor_198	51	48	44	(7)	21	21	196	No		(5)	21	21	196	No	
Receptor_199	48	46	42	(6)	21	21	196	No		(3)	21	21	196	No	
Receptor_200	49	44	43	(6)	21	21	196	No		(1)	21	21	196	No	
Receptor_201	49	44	44	(5)	21	21	196	No		0	21	21	196	No	
Receptor_202	48	43	43	(5)	21	21	196	No		0	21	21	196	No	
Receptor_203	46	42	41	(5)	21	21	196	No		(1)	21	21	196	No	
Receptor_204	44	42	40	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_205	42	41	38	(4)	21	21	196	No		(3)	21	21	196	No	
Receptor_206	43	43	37	(6)	21	21	196	No		(6)	21	21	196	No	
Receptor_207	43	41	36	(7)	21	21	196	No		(5)	21	21	196	No	
Receptor_208	41	41	37	(4)	21	21	196	No		(4)	21	21	196	No	
Receptor_209	41	40	38	(3)	21	21	196	No		(2)	21	21	196	No	
Receptor_210	43	44	41	(1)	21	21	196	No		(2)	21	21	196	No	
Receptor_211	44	46	43	(1)	21	21	196	No		(2)	21	21	196	No	
Receptor_212	48	46	44	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_213	54	50	47	(8)	21	21	196	No		(4)	21	21	196	No	
Receptor_214	56	53	52	(4)	21	21	196	No		(2)	21	21	196	No	
Receptor_215	61	59	55	(6)	21	21	196	No		(4)	21	21	196	No	
Receptor_216	67	63	61	(6)	21	21	196	No		(2)	21	21	196	No	
Receptor_217	70	65	61	(9)	21	21	196	No		(4)	21	21	196	No	
Receptor_218	69	67	64	(5)	21	21	196	No		(3)	21	21	196	No	
Receptor_219	75	72	69	(6)	21	21	196	No		(3)	21	21	196	No	
Receptor_220	83	75	72	(10)	21	21	196	No		(3)	21	21	196	No	
Receptor_221	82	76	73	(8)	21	21	196	No		(3)	21	21	196	No	
Receptor_222	82	83	74	(8)	21	21	196	No		(9)	21	21	196	No	
Receptor_223	94	88	74	(20)	21	21	196	No		(15)	21	21	196	No	
Receptor_224	90	96	74	(17)	21	21	196	No		(22)	21	21	196	No	
Receptor_225	88	91	74	(14)	21	21	196	No		(17)	21	21	196	No	
Receptor_226	80	80	72	(8)	21	21	196	No		(9)	21	21	196	No	
Receptor_227	99	102	85	(14)	21	21	196	No		(17)	21	21	196	No	
Receptor_228	114	120	92	(22)	21	21	196	No		(28)	21	21	196	No	
Receptor_229	136	141	113	(23)	21	21	196	No		(28)	21	21	196	No	
Receptor_230	140	131	110	(30)	21	21	196	No		(21)	21	21	196	No	
Receptor_231	121	124	109	(12)	21	21	196	No		(15)	21	21	196	No	
Receptor_232	139	139	128	(10)	21	21	196	No		(11)	21	21	196	No	
Receptor_233	166	159	154	(13)	21	21	196	No		(5)	21	21	196	No	
Receptor_234	202	192	182	(20)	21	21	196	No		(10)	21	21	196	No	
Receptor_235	208	215	183	(25)	21	21	196	No		(32)	21	21	196	No	
Receptor_236	260	259	248	(12)	21	21	196	No		(12)	21	21	196	No	
Receptor_237	224	239	230	6	21	27	196	No		(9)	21	21	196	No	
Receptor_238	212	209	205	(7)	21	21	196	No		(4)	21	21	196	No	
Receptor_239	194	206	179	(16)	21	21	196	No		(27)	21	21	196	No	
Receptor_240	229	250	200	(29)	21	21	196	No		(49)	21	21	196	No	
Receptor_241	199	218	174	(25)	21	21	196	No		(44)	21	21	196	No	
Receptor_242	173	190	153	(20)	21	21	196	No		(37)	21	21	196	No	
Receptor_243	152	167	137	(15)	21	21	196	No		(30)	21	21	196	No	
Receptor_244	134	148	122	(11)	21	21	196	No		(26)	21	21	196	No	
Receptor_245	113	129	106	(7)	21	21	196	No		(23)	21	21	196	No	
Receptor_246	105	116	113	8	21	29	196	No		(3)	21	21	196	No	
Receptor_247	103	108	109	5	21	26	196	No		1	21	22	196	No	
Receptor_248	108	98	114	7	21	28	196	No		16	21	37	196	No	
Receptor_249	98	97	103	5	21	26	196	No		6	21	26	196	No	
Receptor_250	94	88	89	(5)	21	21	196	No		1	21	22	196	No	
Receptor_251	96	84	80	(16)	21	21	196	No		(4)	21	21	196	No	
Receptor_252	83	82	73	(10)	21	21	196	No		(9)	21	21	196	No	
Receptor_253	82	84	73	(9)	21	21	196	No		(11)	21	21	196	No	
Receptor_254	82	85	73	(8)	21	21	196	No		(11)	21	21	196	No	
Receptor_255	82	85	75	(7)	21	21	196	No		(10)	21	21	196	No	

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Max Concentrations (ug/m3)				2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
Receptor ID	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?		Project		Total	Threshold	Exceeds?	
	Baseline	Project	Project	Increase	Ambient					Increase	Ambient				
Receptor_256	91	93	80	(11)	21	21	196	No		(13)	21	21	196	No	
Receptor_257	104	100	92	(12)	21	21	196	No		(8)	21	21	196	No	
Receptor_258	102	104	93	(9)	21	21	196	No		(11)	21	21	196	No	
Receptor_259	93	94	84	(9)	21	21	196	No		(10)	21	21	196	No	
Receptor_260	84	84	76	(8)	21	21	196	No		(8)	21	21	196	No	
Receptor_261	84	85	78	(7)	21	21	196	No		(7)	21	21	196	No	
Receptor_262	89	85	79	(10)	21	21	196	No		(6)	21	21	196	No	
Receptor_263	83	79	72	(12)	21	21	196	No		(8)	21	21	196	No	
Receptor_264	77	72	67	(10)	21	21	196	No		(5)	21	21	196	No	
Receptor_265	71	67	62	(9)	21	21	196	No		(6)	21	21	196	No	
Receptor_266	67	64	57	(10)	21	21	196	No		(8)	21	21	196	No	
Receptor_267	69	66	57	(12)	21	21	196	No		(9)	21	21	196	No	
Receptor_268	71	66	57	(14)	21	21	196	No		(9)	21	21	196	No	
Receptor_269	70	67	58	(12)	21	21	196	No		(9)	21	21	196	No	
Receptor_270	69	67	58	(11)	21	21	196	No		(9)	21	21	196	No	
Receptor_271	69	66	59	(10)	21	21	196	No		(7)	21	21	196	No	
Receptor_272	69	67	61	(8)	21	21	196	No		(6)	21	21	196	No	
Receptor_273	69	68	62	(8)	21	21	196	No		(7)	21	21	196	No	
Receptor_274	75	70	62	(13)	21	21	196	No		(9)	21	21	196	No	
Receptor_275	74	72	63	(11)	21	21	196	No		(9)	21	21	196	No	
Receptor_276	74	74	68	(6)	21	21	196	No		(6)	21	21	196	No	
Receptor_277	75	76	71	(4)	21	21	196	No		(5)	21	21	196	No	
Receptor_278	75	77	69	(6)	21	21	196	No		(8)	21	21	196	No	
Receptor_279	75	78	70	(5)	21	21	196	No		(8)	21	21	196	No	
Receptor_280	75	79	68	(7)	21	21	196	No		(12)	21	21	196	No	
Receptor_281	77	80	70	(7)	21	21	196	No		(10)	21	21	196	No	
Receptor_282	80	82	70	(9)	21	21	196	No		(12)	21	21	196	No	
Receptor_283	82	85	72	(10)	21	21	196	No		(13)	21	21	196	No	
Receptor_284	86	88	74	(12)	21	21	196	No		(14)	21	21	196	No	
Receptor_285	87	87	75	(12)	21	21	196	No		(12)	21	21	196	No	
Receptor_286	92	94	81	(11)	21	21	196	No		(13)	21	21	196	No	
Receptor_287	96	97	84	(11)	21	21	196	No		(12)	21	21	196	No	
Receptor_288	99	101	89	(11)	21	21	196	No		(12)	21	21	196	No	
Receptor_289	101	101	91	(10)	21	21	196	No		(11)	21	21	196	No	
Receptor_290	98	103	92	(6)	21	21	196	No		(11)	21	21	196	No	
Receptor_291	94	101	94	(1)	21	21	196	No		(8)	21	21	196	No	
Receptor_292	98	101	98	1	21	21	196	No		(3)	21	21	196	No	
Receptor_293	100	102	98	(2)	21	21	196	No		(4)	21	21	196	No	
Receptor_294	105	114	105	0	21	21	196	No		(8)	21	21	196	No	
Receptor_295	117	134	103	(13)	21	21	196	No		(30)	21	21	196	No	
Receptor_296	121	136	100	(21)	21	21	196	No		(36)	21	21	196	No	
Receptor_297	123	134	102	(21)	21	21	196	No		(32)	21	21	196	No	
Receptor_298	119	124	102	(17)	21	21	196	No		(22)	21	21	196	No	
Receptor_299	120	124	102	(18)	21	21	196	No		(22)	21	21	196	No	
Receptor_300	127	115	102	(25)	21	21	196	No		(13)	21	21	196	No	
Receptor_301	132	117	100	(32)	21	21	196	No		(17)	21	21	196	No	
Receptor_302	130	122	99	(30)	21	21	196	No		(22)	21	21	196	No	
Receptor_303	129	120	96	(33)	21	21	196	No		(24)	21	21	196	No	
Receptor_304	123	119	97	(25)	21	21	196	No		(22)	21	21	196	No	
Receptor_305	120	110	99	(21)	21	21	196	No		(11)	21	21	196	No	
Receptor_306	118	113	94	(25)	21	21	196	No		(20)	21	21	196	No	
Receptor_307	118	119	95	(23)	21	21	196	No		(24)	21	21	196	No	
Receptor_308	113	111	96	(17)	21	21	196	No		(15)	21	21	196	No	
Receptor_309	104	104	98	(7)	21	21	196	No		(6)	21	21	196	No	
Receptor_310	100	94	105	4	21	25	196	No		11	21	32	196	No	
Receptor_311	100	88	100	0	21	21	196	No		13	21	33	196	No	
Receptor_312	98	83	96	(2)	21	21	196	No		14	21	35	196	No	
Receptor_313	91	80	94	2	21	23	196	No		13	21	34	196	No	
Receptor_314	89	74	92	2	21	23	196	No		17	21	38	196	No	
Receptor_315	89	73	84	(5)	21	21	196	No		11	21	32	196	No	
Receptor_316	86	74	78	(8)	21	21	196	No		5	21	25	196	No	
Receptor_317	83	73	77	(6)	21	21	196	No		4	21	25	196	No	
Receptor_318	80	71	74	(6)	21	21	196	No		4	21	25	196	No	
Receptor_319	77	69	72	(6)	21	21	196	No		2	21	23	196	No	
Receptor_320	75	67	69	(5)	21	21	196	No		2	21	23	196	No	
Receptor_321	72	65	67	(5)	21	21	196	No		2	21	23	196	No	
Receptor_322	69	63	67	(1)	21	21	196	No		5	21	26	196	No	
Receptor_323	66	60	68	2	21	23	196	No		8	21	29	196	No	
Receptor_324	62	56	66	4	21	25	196	No		9	21	30	196	No	
Receptor_325	58	53	64	6	21	27	196	No		10	21	31	196	No	
Receptor_326	56	50	61	5	21	26	196	No		11	21	32	196	No	
Receptor_327	110	103	96	(14)	21	21	196	No		(7)	21	21	196	No	
Maximum	260	259	248	13	21	34	196	No		17	21	38	196	No	

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_1	74	64	70	(4)	68	68	655	No	6	68	74	655	No
Receptor_2	71	61	74	3	68	71	655	No	13	68	81	655	No
Receptor_3	68	63	74	6	68	74	655	No	11	68	79	655	No
Receptor_4	64	64	74	10	68	77	655	No	10	68	78	655	No
Receptor_5	70	60	72	3	68	71	655	No	12	68	80	655	No
Receptor_6	75	60	71	(4)	68	68	655	No	11	68	79	655	No
Receptor_7	77	61	74	(3)	68	68	655	No	13	68	81	655	No
Receptor_8	75	61	74	(0)	68	68	655	No	14	68	82	655	No
Receptor_9	71	62	77	6	68	74	655	No	15	68	83	655	No
Receptor_10	78	66	79	1	68	69	655	No	12	68	80	655	No
Receptor_11	84	69	79	(5)	68	68	655	No	10	68	78	655	No
Receptor_12	84	77	83	(1)	68	68	655	No	6	68	74	655	No
Receptor_13	79	86	88	9	68	76	655	No	2	68	70	655	No
Receptor_14	76	89	86	10	68	78	655	No	(3)	68	68	655	No
Receptor_15	72	85	78	6	68	74	655	No	(7)	68	68	655	No
Receptor_16	74	78	78	4	68	72	655	No	0	68	68	655	No
Receptor_17	71	74	73	2	68	70	655	No	(1)	68	68	655	No
Receptor_18	72	75	65	(7)	68	68	655	No	(10)	68	68	655	No
Receptor_19	71	74	62	(9)	68	68	655	No	(12)	68	68	655	No
Receptor_20	67	70	64	(3)	68	68	655	No	(6)	68	68	655	No
Receptor_21	69	77	68	(0)	68	68	655	No	(9)	68	68	655	No
Receptor_22	73	81	72	(1)	68	68	655	No	(9)	68	68	655	No
Receptor_23	72	80	71	(1)	68	68	655	No	(8)	68	68	655	No
Receptor_24	68	73	67	(1)	68	68	655	No	(6)	68	68	655	No
Receptor_25	65	71	68	2	68	70	655	No	(4)	68	68	655	No
Receptor_26	68	75	71	3	68	70	655	No	(5)	68	68	655	No
Receptor_27	70	78	72	2	68	70	655	No	(5)	68	68	655	No
Receptor_28	70	77	72	2	68	70	655	No	(5)	68	68	655	No
Receptor_29	71	79	74	2	68	70	655	No	(6)	68	68	655	No
Receptor_30	73	81	75	3	68	70	655	No	(6)	68	68	655	No
Receptor_31	74	83	77	3	68	71	655	No	(6)	68	68	655	No
Receptor_32	75	83	78	2	68	70	655	No	(6)	68	68	655	No
Receptor_33	77	86	80	2	68	70	655	No	(6)	68	68	655	No
Receptor_34	79	88	82	2	68	70	655	No	(6)	68	68	655	No
Receptor_35	80	87	84	4	68	72	655	No	(3)	68	68	655	No
Receptor_36	87	87	90	3	68	71	655	No	2	68	70	655	No
Receptor_37	92	96	94	2	68	69	655	No	(2)	68	68	655	No
Receptor_38	96	103	96	0	68	68	655	No	(7)	68	68	655	No
Receptor_39	96	107	95	(1)	68	68	655	No	(11)	68	68	655	No
Receptor_40	101	112	100	(1)	68	68	655	No	(11)	68	68	655	No
Receptor_41	103	114	101	(1)	68	68	655	No	(13)	68	68	655	No
Receptor_42	104	117	102	(2)	68	68	655	No	(15)	68	68	655	No
Receptor_43	99	112	96	(3)	68	68	655	No	(15)	68	68	655	No
Receptor_44	105	108	95	(10)	68	68	655	No	(13)	68	68	655	No
Receptor_45	111	106	98	(13)	68	68	655	No	(9)	68	68	655	No
Receptor_46	112	114	101	(11)	68	68	655	No	(13)	68	68	655	No
Receptor_47	113	125	108	(5)	68	68	655	No	(18)	68	68	655	No
Receptor_48	119	120	107	(12)	68	68	655	No	(13)	68	68	655	No
Receptor_49	121	127	110	(11)	68	68	655	No	(17)	68	68	655	No
Receptor_50	128	127	115	(14)	68	68	655	No	(12)	68	68	655	No
Receptor_51	129	121	112	(18)	68	68	655	No	(9)	68	68	655	No
Receptor_52	127	117	107	(21)	68	68	655	No	(11)	68	68	655	No
Receptor_53	121	111	99	(23)	68	68	655	No	(12)	68	68	655	No
Receptor_54	115	103	91	(23)	68	68	655	No	(11)	68	68	655	No
Receptor_55	110	99	88	(22)	68	68	655	No	(11)	68	68	655	No
Receptor_56	103	94	85	(18)	68	68	655	No	(8)	68	68	655	No
Receptor_57	106	96	90	(16)	68	68	655	No	(7)	68	68	655	No
Receptor_58	109	99	95	(14)	68	68	655	No	(4)	68	68	655	No
Receptor_59	120	108	95	(25)	68	68	655	No	(13)	68	68	655	No
Receptor_60	124	111	101	(24)	68	68	655	No	(11)	68	68	655	No
Receptor_61	128	115	110	(19)	68	68	655	No	(5)	68	68	655	No
Receptor_62	132	118	117	(15)	68	68	655	No	(1)	68	68	655	No
Receptor_63	136	121	123	(13)	68	68	655	No	2	68	69	655	No
Receptor_64	140	125	126	(14)	68	68	655	No	1	68	69	655	No
Receptor_65	141	124	132	(8)	68	68	655	No	8	68	76	655	No
Receptor_66	148	126	141	(7)	68	68	655	No	15	68	83	655	No
Receptor_67	154	131	145	(9)	68	68	655	No	14	68	82	655	No
Receptor_68	156	133	152	(4)	68	68	655	No	20	68	87	655	No
Receptor_69	167	143	167	0	68	68	655	No	25	68	93	655	No
Receptor_70	154	130	170	16	68	84	655	No	39	68	107	655	No
Receptor_71	144	127	159	16	68	83	655	No	33	68	100	655	No
Receptor_72	135	125	136	1	68	69	655	No	10	68	78	655	No
Receptor_73	136	125	126	(10)	68	68	655	No	1	68	69	655	No
Receptor_74	148	127	119	(30)	68	68	655	No	(8)	68	68	655	No
Receptor_75	158	132	108	(50)	68	68	655	No	(24)	68	68	655	No
Receptor_76	173	145	106	(67)	68	68	655	No	(39)	68	68	655	No
Receptor_77	170	146	102	(68)	68	68	655	No	(44)	68	68	655	No
Receptor_78	167	140	98	(70)	68	68	655	No	(42)	68	68	655	No
Receptor_79	182	153	101	(81)	68	68	655	No	(52)	68	68	655	No
Receptor_80	195	165	107	(87)	68	68	655	No	(58)	68	68	655	No
Receptor_81	202	182	116	(86)	68	68	655	No	(66)	68	68	655	No
Receptor_82	178	171	112	(66)	68	68	655	No	(59)	68	68	655	No
Receptor_83	159	155	108	(52)	68	68	655	No	(47)	68	68	655	No
Receptor_84	160	153	100	(60)	68	68	655	No	(53)	68	68	655	No
Receptor_85	160	144	94	(66)	68	68	655	No	(50)	68	68	655	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	156	132	90	(66)	68	68	655	No	(42)	68	68	655	No
Receptor_87	144	131	87	(57)	68	68	655	No	(45)	68	68	655	No
Receptor_88	129	125	84	(45)	68	68	655	No	(40)	68	68	655	No
Receptor_89	118	114	82	(35)	68	68	655	No	(32)	68	68	655	No
Receptor_90	110	108	78	(32)	68	68	655	No	(30)	68	68	655	No
Receptor_91	103	102	74	(29)	68	68	655	No	(28)	68	68	655	No
Receptor_92	97	97	72	(25)	68	68	655	No	(25)	68	68	655	No
Receptor_93	104	96	74	(30)	68	68	655	No	(22)	68	68	655	No
Receptor_94	107	95	77	(30)	68	68	655	No	(18)	68	68	655	No
Receptor_95	103	93	79	(24)	68	68	655	No	(14)	68	68	655	No
Receptor_96	98	97	80	(18)	68	68	655	No	(17)	68	68	655	No
Receptor_97	94	98	80	(14)	68	68	655	No	(19)	68	68	655	No
Receptor_98	99	104	84	(15)	68	68	655	No	(20)	68	68	655	No
Receptor_99	107	110	90	(17)	68	68	655	No	(20)	68	68	655	No
Receptor_100	115	116	96	(19)	68	68	655	No	(19)	68	68	655	No
Receptor_101	110	108	95	(15)	68	68	655	No	(12)	68	68	655	No
Receptor_102	113	104	101	(12)	68	68	655	No	(3)	68	68	655	No
Receptor_103	120	105	105	(14)	68	68	655	No	0	68	68	655	No
Receptor_104	114	108	108	(6)	68	68	655	No	0	68	68	655	No
Receptor_105	113	109	109	(3)	68	68	655	No	0	68	68	655	No
Receptor_106	120	114	115	(4)	68	68	655	No	1	68	69	655	No
Receptor_107	128	120	122	(6)	68	68	655	No	2	68	70	655	No
Receptor_108	125	121	122	(3)	68	68	655	No	1	68	68	655	No
Receptor_109	122	121	119	(3)	68	68	655	No	(3)	68	68	655	No
Receptor_110	119	122	115	(4)	68	68	655	No	(7)	68	68	655	No
Receptor_111	108	115	109	0	68	68	655	No	(6)	68	68	655	No
Receptor_112	114	119	115	1	68	69	655	No	(4)	68	68	655	No
Receptor_113	117	110	124	8	68	75	655	No	14	68	82	655	No
Receptor_114	118	106	127	9	68	77	655	No	22	68	90	655	No
Receptor_115	120	106	122	2	68	70	655	No	16	68	84	655	No
Receptor_116	120	108	124	4	68	72	655	No	16	68	84	655	No
Receptor_117	129	124	133	5	68	72	655	No	9	68	77	655	No
Receptor_118	138	141	142	4	68	71	655	No	0	68	68	655	No
Receptor_119	151	161	145	(6)	68	68	655	No	(16)	68	68	655	No
Receptor_120	162	181	165	3	68	71	655	No	(16)	68	68	655	No
Receptor_121	152	186	179	26	68	94	655	No	(7)	68	68	655	No
Receptor_122	159	174	178	18	68	86	655	No	4	68	72	655	No
Receptor_123	153	152	159	6	68	74	655	No	7	68	75	655	No
Receptor_124	153	147	140	(13)	68	68	655	No	(7)	68	68	655	No
Receptor_125	178	173	158	(20)	68	68	655	No	(15)	68	68	655	No
Receptor_126	170	165	154	(17)	68	68	655	No	(11)	68	68	655	No
Receptor_127	157	151	141	(15)	68	68	655	No	(10)	68	68	655	No
Receptor_128	136	132	125	(11)	68	68	655	No	(7)	68	68	655	No
Receptor_129	119	121	120	1	68	69	655	No	(1)	68	68	655	No
Receptor_130	121	117	111	(9)	68	68	655	No	(5)	68	68	655	No
Receptor_131	123	119	113	(10)	68	68	655	No	(6)	68	68	655	No
Receptor_132	114	111	105	(9)	68	68	655	No	(5)	68	68	655	No
Receptor_133	106	103	98	(8)	68	68	655	No	(5)	68	68	655	No
Receptor_134	99	96	92	(7)	68	68	655	No	(4)	68	68	655	No
Receptor_135	93	90	86	(7)	68	68	655	No	(4)	68	68	655	No
Receptor_136	87	84	81	(6)	68	68	655	No	(3)	68	68	655	No
Receptor_137	82	79	76	(6)	68	68	655	No	(3)	68	68	655	No
Receptor_138	90	88	83	(7)	68	68	655	No	(5)	68	68	655	No
Receptor_139	93	90	84	(8)	68	68	655	No	(6)	68	68	655	No
Receptor_140	88	85	80	(8)	68	68	655	No	(6)	68	68	655	No
Receptor_141	83	80	82	(1)	68	68	655	No	2	68	70	655	No
Receptor_142	76	73	79	3	68	70	655	No	6	68	74	655	No
Receptor_143	71	67	90	19	68	87	655	No	22	68	90	655	No
Receptor_144	74	82	93	19	68	87	655	No	11	68	79	655	No
Receptor_145	86	89	95	10	68	77	655	No	6	68	74	655	No
Receptor_146	83	86	91	9	68	77	655	No	6	68	74	655	No
Receptor_147	83	82	87	4	68	72	655	No	5	68	73	655	No
Receptor_148	87	78	81	(6)	68	68	655	No	4	68	72	655	No
Receptor_149	99	77	85	(14)	68	68	655	No	8	68	76	655	No
Receptor_150	104	78	93	(10)	68	68	655	No	15	68	83	655	No
Receptor_151	105	73	92	(13)	68	68	655	No	20	68	88	655	No
Receptor_152	99	74	84	(15)	68	68	655	No	9	68	77	655	No
Receptor_153	84	78	74	(10)	68	68	655	No	(4)	68	68	655	No
Receptor_154	90	77	75	(16)	68	68	655	No	(2)	68	68	655	No
Receptor_155	101	79	84	(17)	68	68	655	No	5	68	73	655	No
Receptor_156	108	79	92	(16)	68	68	655	No	13	68	80	655	No
Receptor_157	118	84	101	(16)	68	68	655	No	17	68	85	655	No
Receptor_158	105	83	87	(18)	68	68	655	No	3	68	71	655	No
Receptor_159	111	88	91	(19)	68	68	655	No	4	68	71	655	No
Receptor_160	117	92	97	(21)	68	68	655	No	5	68	72	655	No
Receptor_161	126	97	104	(22)	68	68	655	No	7	68	74	655	No
Receptor_162	135	104	111	(24)	68	68	655	No	7	68	75	655	No
Receptor_163	145	111	119	(27)	68	68	655	No	8	68	76	655	No
Receptor_164	157	119	127	(29)	68	68	655	No	9	68	77	655	No
Receptor_165	169	127	137	(32)	68	68	655	No	10	68	77	655	No
Receptor_166	184	138	148	(36)	68	68	655	No	10	68	78	655	No
Receptor_167	200	149	160	(40)	68	68	655	No	11	68	79	655	No
Receptor_168	219	163	175	(44)	68	68	655	No	11	68	79	655	No
Receptor_169	232	174	185	(47)	68	68	655	No	11	68	79	655	No
Receptor_170	213	175	162	(51)	68	68	655	No	(13)	68	68	655	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	188	169	153	(35)	68	68	655	No	(17)	68	68	655	No
Receptor_172	159	152	138	(21)	68	68	655	No	(13)	68	68	655	No
Receptor_173	126	122	112	(13)	68	68	655	No	(9)	68	68	655	No
Receptor_174	123	119	107	(16)	68	68	655	No	(11)	68	68	655	No
Receptor_175	120	114	102	(18)	68	68	655	No	(12)	68	68	655	No
Receptor_176	115	110	97	(18)	68	68	655	No	(13)	68	68	655	No
Receptor_177	110	106	94	(16)	68	68	655	No	(12)	68	68	655	No
Receptor_178	104	102	93	(11)	68	68	655	No	(9)	68	68	655	No
Receptor_179	98	98	97	(1)	68	68	655	No	(1)	68	68	655	No
Receptor_180	95	97	102	7	68	75	655	No	6	68	74	655	No
Receptor_181	98	104	109	12	68	79	655	No	5	68	73	655	No
Receptor_182	101	113	118	17	68	85	655	No	5	68	73	655	No
Receptor_183	104	118	124	20	68	88	655	No	6	68	74	655	No
Receptor_184	109	109	115	6	68	74	655	No	6	68	74	655	No
Receptor_185	102	99	90	(12)	68	68	655	No	(9)	68	68	655	No
Receptor_186	112	107	103	(9)	68	68	655	No	(4)	68	68	655	No
Receptor_187	113	119	107	(6)	68	68	655	No	(12)	68	68	655	No
Receptor_188	112	130	100	(12)	68	68	655	No	(29)	68	68	655	No
Receptor_189	121	105	102	(19)	68	68	655	No	(3)	68	68	655	No
Receptor_190	120	113	100	(21)	68	68	655	No	(13)	68	68	655	No
Receptor_191	109	102	90	(19)	68	68	655	No	(12)	68	68	655	No
Receptor_192	101	92	81	(20)	68	68	655	No	(11)	68	68	655	No
Receptor_193	94	83	74	(20)	68	68	655	No	(9)	68	68	655	No
Receptor_194	87	76	67	(20)	68	68	655	No	(8)	68	68	655	No
Receptor_195	80	69	61	(19)	68	68	655	No	(8)	68	68	655	No
Receptor_196	78	64	67	(11)	68	68	655	No	2	68	70	655	No
Receptor_197	82	60	71	(10)	68	68	655	No	11	68	79	655	No
Receptor_198	81	59	73	(9)	68	68	655	No	14	68	82	655	No
Receptor_199	80	61	71	(9)	68	68	655	No	10	68	78	655	No
Receptor_200	78	60	67	(11)	68	68	655	No	7	68	75	655	No
Receptor_201	75	58	61	(14)	68	68	655	No	3	68	71	655	No
Receptor_202	72	56	59	(14)	68	68	655	No	2	68	70	655	No
Receptor_203	71	55	57	(13)	68	68	655	No	3	68	70	655	No
Receptor_204	69	55	56	(13)	68	68	655	No	1	68	69	655	No
Receptor_205	67	58	55	(12)	68	68	655	No	(3)	68	68	655	No
Receptor_206	65	60	53	(11)	68	68	655	No	(6)	68	68	655	No
Receptor_207	63	59	52	(11)	68	68	655	No	(7)	68	68	655	No
Receptor_208	61	56	51	(10)	68	68	655	No	(5)	68	68	655	No
Receptor_209	61	58	52	(9)	68	68	655	No	(6)	68	68	655	No
Receptor_210	61	63	55	(6)	68	68	655	No	(8)	68	68	655	No
Receptor_211	64	66	54	(10)	68	68	655	No	(12)	68	68	655	No
Receptor_212	71	65	52	(19)	68	68	655	No	(14)	68	68	655	No
Receptor_213	77	63	58	(19)	68	68	655	No	(5)	68	68	655	No
Receptor_214	81	70	66	(15)	68	68	655	No	(4)	68	68	655	No
Receptor_215	88	80	75	(13)	68	68	655	No	(4)	68	68	655	No
Receptor_216	95	86	82	(13)	68	68	655	No	(5)	68	68	655	No
Receptor_217	98	88	83	(14)	68	68	655	No	(5)	68	68	655	No
Receptor_218	102	85	81	(22)	68	68	655	No	(5)	68	68	655	No
Receptor_219	110	91	86	(24)	68	68	655	No	(5)	68	68	655	No
Receptor_220	119	96	89	(30)	68	68	655	No	(7)	68	68	655	No
Receptor_221	124	111	88	(36)	68	68	655	No	(23)	68	68	655	No
Receptor_222	121	122	83	(38)	68	68	655	No	(38)	68	68	655	No
Receptor_223	115	127	86	(28)	68	68	655	No	(41)	68	68	655	No
Receptor_224	115	130	94	(21)	68	68	655	No	(36)	68	68	655	No
Receptor_225	114	121	100	(14)	68	68	655	No	(20)	68	68	655	No
Receptor_226	102	107	92	(10)	68	68	655	No	(15)	68	68	655	No
Receptor_227	126	135	113	(13)	68	68	655	No	(22)	68	68	655	No
Receptor_228	147	159	128	(19)	68	68	655	No	(31)	68	68	655	No
Receptor_229	169	191	145	(24)	68	68	655	No	(46)	68	68	655	No
Receptor_230	179	188	132	(47)	68	68	655	No	(56)	68	68	655	No
Receptor_231	188	179	128	(60)	68	68	655	No	(52)	68	68	655	No
Receptor_232	220	202	151	(69)	68	68	655	No	(50)	68	68	655	No
Receptor_233	258	223	181	(78)	68	68	655	No	(43)	68	68	655	No
Receptor_234	303	242	216	(87)	68	68	655	No	(26)	68	68	655	No
Receptor_235	317	284	220	(97)	68	68	655	No	(64)	68	68	655	No
Receptor_236	394	328	307	(86)	68	68	655	No	(21)	68	68	655	No
Receptor_237	362	314	284	(78)	68	68	655	No	(30)	68	68	655	No
Receptor_238	321	306	245	(76)	68	68	655	No	(61)	68	68	655	No
Receptor_239	267	294	239	(28)	68	68	655	No	(55)	68	68	655	No
Receptor_240	317	310	328	11	68	79	655	No	19	68	87	655	No
Receptor_241	270	271	288	18	68	86	655	No	17	68	85	655	No
Receptor_242	231	238	253	22	68	89	655	No	15	68	83	655	No
Receptor_243	201	210	223	23	68	90	655	No	13	68	81	655	No
Receptor_244	176	187	198	22	68	90	655	No	12	68	79	655	No
Receptor_245	148	160	169	21	68	89	655	No	9	68	77	655	No
Receptor_246	147	158	149	3	68	71	655	No	(9)	68	68	655	No
Receptor_247	166	164	172	5	68	73	655	No	7	68	75	655	No
Receptor_248	152	142	159	7	68	75	655	No	18	68	85	655	No
Receptor_249	120	121	128	8	68	75	655	No	7	68	75	655	No
Receptor_250	126	120	109	(17)	68	68	655	No	(11)	68	68	655	No
Receptor_251	120	112	101	(19)	68	68	655	No	(11)	68	68	655	No
Receptor_252	105	100	93	(13)	68	68	655	No	(8)	68	68	655	No
Receptor_253	104	101	94	(11)	68	68	655	No	(7)	68	68	655	No
Receptor_254	103	102	95	(8)	68	68	655	No	(6)	68	68	655	No
Receptor_255	102	104	97	(5)	68	68	655	No	(6)	68	68	655	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012 Baseline	2019 NO Project	2019 Project	Project Increase	Ambient	Total	Threshold	Exceeds?	Project Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	116	109	103	(13)	68	68	655	No	(6)	68	68	655	No
Receptor_257	137	122	115	(22)	68	68	655	No	(7)	68	68	655	No
Receptor_258	135	121	116	(19)	68	68	655	No	(5)	68	68	655	No
Receptor_259	116	111	106	(9)	68	68	655	No	(4)	68	68	655	No
Receptor_260	102	106	98	(4)	68	68	655	No	(7)	68	68	655	No
Receptor_261	103	108	100	(3)	68	68	655	No	(9)	68	68	655	No
Receptor_262	104	112	101	(3)	68	68	655	No	(10)	68	68	655	No
Receptor_263	98	107	88	(10)	68	68	655	No	(19)	68	68	655	No
Receptor_264	93	98	76	(17)	68	68	655	No	(22)	68	68	655	No
Receptor_265	86	89	67	(19)	68	68	655	No	(22)	68	68	655	No
Receptor_266	78	86	63	(15)	68	68	655	No	(22)	68	68	655	No
Receptor_267	79	88	65	(15)	68	68	655	No	(23)	68	68	655	No
Receptor_268	80	90	65	(15)	68	68	655	No	(24)	68	68	655	No
Receptor_269	80	91	66	(14)	68	68	655	No	(25)	68	68	655	No
Receptor_270	81	93	68	(13)	68	68	655	No	(25)	68	68	655	No
Receptor_271	84	94	71	(12)	68	68	655	No	(23)	68	68	655	No
Receptor_272	87	95	72	(15)	68	68	655	No	(24)	68	68	655	No
Receptor_273	91	96	69	(21)	68	68	655	No	(27)	68	68	655	No
Receptor_274	94	97	70	(24)	68	68	655	No	(27)	68	68	655	No
Receptor_275	98	97	72	(26)	68	68	655	No	(26)	68	68	655	No
Receptor_276	101	97	73	(27)	68	68	655	No	(24)	68	68	655	No
Receptor_277	103	97	75	(28)	68	68	655	No	(21)	68	68	655	No
Receptor_278	106	96	77	(29)	68	68	655	No	(19)	68	68	655	No
Receptor_279	109	95	78	(30)	68	68	655	No	(17)	68	68	655	No
Receptor_280	111	94	80	(31)	68	68	655	No	(14)	68	68	655	No
Receptor_281	113	99	84	(29)	68	68	655	No	(14)	68	68	655	No
Receptor_282	114	103	89	(25)	68	68	655	No	(14)	68	68	655	No
Receptor_283	116	108	95	(21)	68	68	655	No	(13)	68	68	655	No
Receptor_284	119	113	101	(18)	68	68	655	No	(12)	68	68	655	No
Receptor_285	123	118	107	(16)	68	68	655	No	(11)	68	68	655	No
Receptor_286	130	124	112	(18)	68	68	655	No	(12)	68	68	655	No
Receptor_287	136	128	112	(23)	68	68	655	No	(16)	68	68	655	No
Receptor_288	143	133	111	(32)	68	68	655	No	(23)	68	68	655	No
Receptor_289	145	137	118	(27)	68	68	655	No	(19)	68	68	655	No
Receptor_290	143	137	132	(11)	68	68	655	No	(5)	68	68	655	No
Receptor_291	142	138	129	(13)	68	68	655	No	(9)	68	68	655	No
Receptor_292	136	138	141	5	68	73	655	No	3	68	71	655	No
Receptor_293	144	141	144	(0)	68	68	655	No	3	68	71	655	No
Receptor_294	162	154	136	(26)	68	68	655	No	(17)	68	68	655	No
Receptor_295	174	163	142	(33)	68	68	655	No	(21)	68	68	655	No
Receptor_296	181	164	140	(41)	68	68	655	No	(25)	68	68	655	No
Receptor_297	175	158	132	(43)	68	68	655	No	(26)	68	68	655	No
Receptor_298	156	153	126	(30)	68	68	655	No	(26)	68	68	655	No
Receptor_299	160	157	123	(37)	68	68	655	No	(34)	68	68	655	No
Receptor_300	148	151	112	(36)	68	68	655	No	(39)	68	68	655	No
Receptor_301	143	142	120	(22)	68	68	655	No	(22)	68	68	655	No
Receptor_302	150	139	129	(21)	68	68	655	No	(10)	68	68	655	No
Receptor_303	161	137	125	(37)	68	68	655	No	(13)	68	68	655	No
Receptor_304	154	141	120	(34)	68	68	655	No	(21)	68	68	655	No
Receptor_305	138	137	107	(31)	68	68	655	No	(29)	68	68	655	No
Receptor_306	134	125	109	(25)	68	68	655	No	(16)	68	68	655	No
Receptor_307	130	125	115	(15)	68	68	655	No	(10)	68	68	655	No
Receptor_308	133	120	126	(7)	68	68	655	No	5	68	73	655	No
Receptor_309	131	116	123	(8)	68	68	655	No	7	68	74	655	No
Receptor_310	126	111	111	(15)	68	68	655	No	0	68	68	655	No
Receptor_311	117	107	125	7	68	75	655	No	18	68	85	655	No
Receptor_312	113	102	112	(1)	68	68	655	No	10	68	78	655	No
Receptor_313	109	99	102	(6)	68	68	655	No	3	68	71	655	No
Receptor_314	104	98	97	(6)	68	68	655	No	(0)	68	68	655	No
Receptor_315	101	95	96	(5)	68	68	655	No	1	68	69	655	No
Receptor_316	99	92	94	(5)	68	68	655	No	2	68	70	655	No
Receptor_317	95	90	91	(3)	68	68	655	No	1	68	69	655	No
Receptor_318	91	88	88	(3)	68	68	655	No	0	68	68	655	No
Receptor_319	89	85	85	(5)	68	68	655	No	(0)	68	68	655	No
Receptor_320	88	81	81	(6)	68	68	655	No	(0)	68	68	655	No
Receptor_321	86	77	78	(8)	68	68	655	No	1	68	69	655	No
Receptor_322	85	75	75	(10)	68	68	655	No	0	68	68	655	No
Receptor_323	84	73	73	(11)	68	68	655	No	0	68	68	655	No
Receptor_324	82	71	72	(10)	68	68	655	No	1	68	69	655	No
Receptor_325	80	69	71	(9)	68	68	655	No	2	68	70	655	No
Receptor_326	77	66	70	(7)	68	68	655	No	4	68	72	655	No
Receptor_327	134	140	112	(23)	68	68	655	No	(29)	68	68	655	No
Maximum	394	328	328	26	68	94	655	No	39	68	107	655	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_1	44	41	46	2	39	41	1,300	No	5	39	44	1,300	No
Receptor_2	43	43	46	3	39	42	1,300	No	3	39	42	1,300	No
Receptor_3	46	46	48	2	39	41	1,300	No	1	39	40	1,300	No
Receptor_4	49	48	51	2	39	42	1,300	No	3	39	42	1,300	No
Receptor_5	50	48	52	3	39	42	1,300	No	5	39	44	1,300	No
Receptor_6	49	46	51	2	39	42	1,300	No	5	39	45	1,300	No
Receptor_7	47	44	49	2	39	41	1,300	No	5	39	44	1,300	No
Receptor_8	43	41	46	2	39	41	1,300	No	4	39	44	1,300	No
Receptor_9	40	41	45	5	39	44	1,300	No	4	39	43	1,300	No
Receptor_10	39	42	45	7	39	46	1,300	No	3	39	43	1,300	No
Receptor_11	37	43	45	8	39	47	1,300	No	2	39	42	1,300	No
Receptor_12	39	43	45	6	39	45	1,300	No	2	39	41	1,300	No
Receptor_13	40	43	43	4	39	43	1,300	No	0	39	40	1,300	No
Receptor_14	41	46	45	5	39	44	1,300	No	(0)	39	39	1,300	No
Receptor_15	44	50	48	5	39	44	1,300	No	(1)	39	39	1,300	No
Receptor_16	47	52	50	3	39	42	1,300	No	(2)	39	39	1,300	No
Receptor_17	47	52	50	2	39	41	1,300	No	(3)	39	39	1,300	No
Receptor_18	45	49	46	1	39	40	1,300	No	(3)	39	39	1,300	No
Receptor_19	41	44	40	(0)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_20	38	44	38	0	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_21	37	43	39	2	39	41	1,300	No	(4)	39	39	1,300	No
Receptor_22	36	42	40	4	39	43	1,300	No	(2)	39	39	1,300	No
Receptor_23	36	41	41	6	39	45	1,300	No	0	39	39	1,300	No
Receptor_24	36	43	43	6	39	45	1,300	No	(0)	39	39	1,300	No
Receptor_25	37	44	43	6	39	45	1,300	No	(0)	39	39	1,300	No
Receptor_26	38	44	44	6	39	45	1,300	No	(1)	39	39	1,300	No
Receptor_27	38	44	43	5	39	44	1,300	No	(1)	39	39	1,300	No
Receptor_28	37	44	42	5	39	44	1,300	No	(3)	39	39	1,300	No
Receptor_29	38	45	43	5	39	44	1,300	No	(2)	39	39	1,300	No
Receptor_30	39	45	44	5	39	45	1,300	No	(1)	39	39	1,300	No
Receptor_31	40	46	45	6	39	45	1,300	No	(1)	39	39	1,300	No
Receptor_32	39	51	46	7	39	46	1,300	No	(5)	39	39	1,300	No
Receptor_33	40	52	47	7	39	46	1,300	No	(5)	39	39	1,300	No
Receptor_34	41	53	48	7	39	46	1,300	No	(5)	39	39	1,300	No
Receptor_35	45	58	51	6	39	45	1,300	No	(7)	39	39	1,300	No
Receptor_36	49	63	54	4	39	44	1,300	No	(9)	39	39	1,300	No
Receptor_37	53	66	55	3	39	42	1,300	No	(11)	39	39	1,300	No
Receptor_38	55	69	56	1	39	40	1,300	No	(13)	39	39	1,300	No
Receptor_39	57	71	56	(1)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_40	59	74	59	(0)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_41	61	76	60	(1)	39	39	1,300	No	(16)	39	39	1,300	No
Receptor_42	62	78	61	(2)	39	39	1,300	No	(17)	39	39	1,300	No
Receptor_43	61	75	58	(3)	39	39	1,300	No	(17)	39	39	1,300	No
Receptor_44	60	74	58	(2)	39	39	1,300	No	(16)	39	39	1,300	No
Receptor_45	59	71	58	(0)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_46	63	78	61	(2)	39	39	1,300	No	(17)	39	39	1,300	No
Receptor_47	68	85	65	(3)	39	39	1,300	No	(20)	39	39	1,300	No
Receptor_48	67	82	65	(2)	39	39	1,300	No	(18)	39	39	1,300	No
Receptor_49	70	87	67	(3)	39	39	1,300	No	(20)	39	39	1,300	No
Receptor_50	71	88	69	(2)	39	39	1,300	No	(19)	39	39	1,300	No
Receptor_51	66	81	67	0	39	40	1,300	No	(15)	39	39	1,300	No
Receptor_52	63	74	63	(0)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_53	60	68	59	(2)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_54	57	64	54	(3)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_55	55	61	52	(3)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_56	53	58	49	(4)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_57	56	60	51	(5)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_58	58	63	53	(5)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_59	60	67	57	(4)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_60	64	70	59	(5)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_61	68	72	62	(6)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_62	72	75	64	(8)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_63	76	77	67	(9)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_64	80	81	70	(10)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_65	81	82	71	(10)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_66	82	83	70	(11)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_67	82	83	69	(13)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_68	81	81	75	(7)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_69	88	87	81	(7)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_70	80	81	81	1	39	40	1,300	No	(0)	39	39	1,300	No
Receptor_71	73	83	84	11	39	50	1,300	No	1	39	40	1,300	No
Receptor_72	73	83	84	11	39	50	1,300	No	0	39	40	1,300	No
Receptor_73	74	83	84	10	39	49	1,300	No	1	39	40	1,300	No
Receptor_74	79	80	77	(2)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_75	84	76	66	(17)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_76	92	84	66	(26)	39	39	1,300	No	(18)	39	39	1,300	No
Receptor_77	92	84	64	(28)	39	39	1,300	No	(20)	39	39	1,300	No
Receptor_78	90	83	63	(27)	39	39	1,300	No	(20)	39	39	1,300	No
Receptor_79	95	88	66	(29)	39	39	1,300	No	(22)	39	39	1,300	No
Receptor_80	98	92	69	(30)	39	39	1,300	No	(24)	39	39	1,300	No
Receptor_81	101	98	75	(26)	39	39	1,300	No	(23)	39	39	1,300	No
Receptor_82	92	97	73	(18)	39	39	1,300	No	(24)	39	39	1,300	No
Receptor_83	85	95	72	(13)	39	39	1,300	No	(23)	39	39	1,300	No
Receptor_84	83	86	66	(17)	39	39	1,300	No	(20)	39	39	1,300	No
Receptor_85	81	78	62	(19)	39	39	1,300	No	(16)	39	39	1,300	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	80	75	59	(21)	39	39	1,300	No	(17)	39	39	1,300	No
Receptor_87	73	71	57	(16)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_88	69	72	57	(12)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_89	66	72	57	(9)	39	39	1,300	No	(16)	39	39	1,300	No
Receptor_90	62	68	54	(8)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_91	59	65	52	(8)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_92	57	62	49	(7)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_93	56	61	51	(5)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_94	55	59	51	(4)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_95	54	56	51	(3)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_96	54	55	52	(2)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_97	56	59	51	(4)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_98	60	63	55	(5)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_99	65	68	61	(4)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_100	71	74	66	(4)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_101	72	74	66	(5)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_102	71	79	64	(7)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_103	70	82	62	(8)	39	39	1,300	No	(20)	39	39	1,300	No
Receptor_104	70	83	65	(6)	39	39	1,300	No	(18)	39	39	1,300	No
Receptor_105	69	81	66	(3)	39	39	1,300	No	(16)	39	39	1,300	No
Receptor_106	73	84	70	(3)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_107	77	87	75	(2)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_108	77	86	75	(2)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_109	76	83	72	(5)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_110	74	81	71	(3)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_111	70	77	65	(5)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_112	69	78	69	1	39	40	1,300	No	(8)	39	39	1,300	No
Receptor_113	66	79	74	8	39	47	1,300	No	(5)	39	39	1,300	No
Receptor_114	69	78	76	7	39	47	1,300	No	(1)	39	39	1,300	No
Receptor_115	70	72	74	4	39	43	1,300	No	2	39	41	1,300	No
Receptor_116	69	69	67	(2)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_117	74	77	73	(2)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_118	86	85	79	(7)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_119	99	94	84	(15)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_120	114	103	91	(22)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_121	119	105	96	(23)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_122	118	104	95	(23)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_123	109	100	90	(19)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_124	100	96	88	(12)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_125	96	104	93	(4)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_126	91	98	87	(4)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_127	84	91	82	(2)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_128	82	82	75	(6)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_129	84	80	70	(14)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_130	77	76	69	(9)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_131	72	73	67	(5)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_132	67	68	62	(5)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_133	63	63	58	(5)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_134	59	59	54	(5)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_135	56	56	51	(5)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_136	53	52	48	(5)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_137	50	49	45	(6)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_138	47	50	46	(1)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_139	45	50	45	(0)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_140	43	47	42	(1)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_141	45	48	40	(4)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_142	44	47	40	(4)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_143	46	49	42	(4)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_144	48	48	44	(4)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_145	47	45	45	(3)	39	39	1,300	No	0	39	39	1,300	No
Receptor_146	45	43	43	(2)	39	39	1,300	No	0	39	39	1,300	No
Receptor_147	43	40	41	(1)	39	39	1,300	No	1	39	40	1,300	No
Receptor_148	40	39	40	0	39	39	1,300	No	2	39	41	1,300	No
Receptor_149	42	39	40	(1)	39	39	1,300	No	1	39	40	1,300	No
Receptor_150	44	40	41	(3)	39	39	1,300	No	1	39	40	1,300	No
Receptor_151	45	40	40	(4)	39	39	1,300	No	1	39	40	1,300	No
Receptor_152	42	44	40	(2)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_153	44	50	41	(4)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_154	46	50	41	(5)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_155	45	47	40	(5)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_156	47	43	41	(6)	39	39	1,300	No	(2)	39	39	1,300	No
Receptor_157	51	44	45	(6)	39	39	1,300	No	1	39	40	1,300	No
Receptor_158	48	48	41	(7)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_159	51	49	43	(8)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_160	53	50	45	(8)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_161	57	52	49	(9)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_162	61	55	52	(9)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_163	65	59	56	(9)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_164	68	64	59	(9)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_165	71	69	62	(10)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_166	76	77	66	(9)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_167	82	86	73	(9)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_168	91	95	81	(10)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_169	97	101	86	(11)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_170	96	101	91	(5)	39	39	1,300	No	(10)	39	39	1,300	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	92	90	82	(10)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_172	92	80	76	(16)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_173	87	83	72	(15)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_174	87	80	68	(19)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_175	86	70	65	(21)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_176	84	66	62	(22)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_177	80	63	60	(20)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_178	74	61	62	(12)	39	39	1,300	No	1	39	40	1,300	No
Receptor_179	67	61	60	(6)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_180	59	62	60	1	39	40	1,300	No	(2)	39	39	1,300	No
Receptor_181	56	64	61	5	39	44	1,300	No	(2)	39	39	1,300	No
Receptor_182	56	66	63	7	39	47	1,300	No	(3)	39	39	1,300	No
Receptor_183	58	67	64	6	39	45	1,300	No	(3)	39	39	1,300	No
Receptor_184	60	63	60	(0)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_185	58	59	57	(1)	39	39	1,300	No	(2)	39	39	1,300	No
Receptor_186	59	61	58	(1)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_187	64	64	56	(8)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_188	69	68	54	(16)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_189	64	72	59	(6)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_190	65	71	56	(9)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_191	60	67	53	(7)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_192	57	64	50	(7)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_193	54	61	47	(8)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_194	51	56	43	(8)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_195	48	51	39	(9)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_196	45	46	36	(9)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_197	42	41	33	(9)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_198	40	36	32	(8)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_199	39	35	31	(8)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_200	38	34	31	(7)	39	39	1,300	No	(2)	39	39	1,300	No
Receptor_201	37	32	31	(6)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_202	37	32	30	(6)	39	39	1,300	No	(2)	39	39	1,300	No
Receptor_203	37	33	29	(7)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_204	37	33	28	(8)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_205	36	34	28	(8)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_206	35	34	28	(7)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_207	35	34	29	(6)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_208	34	33	29	(5)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_209	34	35	30	(3)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_210	34	37	32	(2)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_211	35	38	33	(2)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_212	38	39	34	(4)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_213	41	40	34	(7)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_214	45	44	36	(8)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_215	47	48	39	(8)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_216	48	52	44	(4)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_217	53	54	44	(9)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_218	54	54	44	(10)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_219	57	58	47	(11)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_220	61	61	50	(11)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_221	62	63	54	(8)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_222	65	67	57	(8)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_223	69	67	56	(13)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_224	68	67	54	(14)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_225	64	65	53	(11)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_226	58	65	52	(6)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_227	72	70	58	(14)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_228	84	81	65	(18)	39	39	1,300	No	(16)	39	39	1,300	No
Receptor_229	100	97	77	(23)	39	39	1,300	No	(19)	39	39	1,300	No
Receptor_230	103	99	82	(21)	39	39	1,300	No	(17)	39	39	1,300	No
Receptor_231	97	99	82	(15)	39	39	1,300	No	(17)	39	39	1,300	No
Receptor_232	108	112	93	(16)	39	39	1,300	No	(19)	39	39	1,300	No
Receptor_233	120	132	104	(16)	39	39	1,300	No	(28)	39	39	1,300	No
Receptor_234	137	161	119	(18)	39	39	1,300	No	(42)	39	39	1,300	No
Receptor_235	162	161	128	(34)	39	39	1,300	No	(33)	39	39	1,300	No
Receptor_236	176	214	160	(16)	39	39	1,300	No	(54)	39	39	1,300	No
Receptor_237	162	179	152	(9)	39	39	1,300	No	(26)	39	39	1,300	No
Receptor_238	142	157	134	(9)	39	39	1,300	No	(24)	39	39	1,300	No
Receptor_239	130	141	113	(17)	39	39	1,300	No	(28)	39	39	1,300	No
Receptor_240	139	150	132	(7)	39	39	1,300	No	(18)	39	39	1,300	No
Receptor_241	117	131	117	(0)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_242	103	115	105	2	39	41	1,300	No	(10)	39	39	1,300	No
Receptor_243	92	103	95	3	39	42	1,300	No	(8)	39	39	1,300	No
Receptor_244	84	93	87	4	39	43	1,300	No	(6)	39	39	1,300	No
Receptor_245	73	81	78	4	39	43	1,300	No	(3)	39	39	1,300	No
Receptor_246	76	80	80	3	39	43	1,300	No	(0)	39	39	1,300	No
Receptor_247	75	72	73	(2)	39	39	1,300	No	1	39	40	1,300	No
Receptor_248	70	63	62	(9)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_249	67	60	57	(10)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_250	69	57	56	(12)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_251	67	57	56	(10)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_252	62	54	54	(8)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_253	63	56	56	(7)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_254	63	57	57	(6)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_255	63	58	58	(5)	39	39	1,300	No	(0)	39	39	1,300	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	69	63	63	(6)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_257	76	67	67	(9)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_258	76	70	69	(7)	39	39	1,300	No	(0)	39	39	1,300	No
Receptor_259	69	65	64	(5)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_260	63	58	57	(5)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_261	63	59	58	(5)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_262	63	59	58	(6)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_263	57	53	52	(6)	39	39	1,300	No	(1)	39	39	1,300	No
Receptor_264	51	51	48	(3)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_265	48	49	45	(2)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_266	45	46	42	(2)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_267	45	47	43	(2)	39	39	1,300	No	(4)	39	39	1,300	No
Receptor_268	45	47	44	(2)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_269	46	47	44	(2)	39	39	1,300	No	(2)	39	39	1,300	No
Receptor_270	48	48	45	(3)	39	39	1,300	No	(3)	39	39	1,300	No
Receptor_271	48	49	44	(4)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_272	48	51	43	(5)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_273	50	52	43	(7)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_274	51	54	44	(7)	39	39	1,300	No	(10)	39	39	1,300	No
Receptor_275	53	56	45	(8)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_276	54	58	46	(8)	39	39	1,300	No	(12)	39	39	1,300	No
Receptor_277	55	60	47	(8)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_278	56	62	48	(8)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_279	56	63	49	(8)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_280	58	65	50	(8)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_281	60	66	53	(8)	39	39	1,300	No	(14)	39	39	1,300	No
Receptor_282	62	68	57	(5)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_283	63	69	60	(3)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_284	64	71	63	(1)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_285	66	73	65	(1)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_286	72	76	69	(3)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_287	77	79	72	(5)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_288	82	82	76	(6)	39	39	1,300	No	(5)	39	39	1,300	No
Receptor_289	83	83	77	(6)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_290	83	83	76	(7)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_291	82	83	78	(4)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_292	80	80	73	(7)	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_293	85	80	81	(4)	39	39	1,300	No	1	39	41	1,300	No
Receptor_294	91	87	89	(2)	39	39	1,300	No	2	39	41	1,300	No
Receptor_295	96	93	95	(1)	39	39	1,300	No	2	39	41	1,300	No
Receptor_296	96	96	97	1	39	40	1,300	No	1	39	40	1,300	No
Receptor_297	94	101	94	0	39	39	1,300	No	(6)	39	39	1,300	No
Receptor_298	88	103	92	4	39	43	1,300	No	(11)	39	39	1,300	No
Receptor_299	94	100	86	(9)	39	39	1,300	No	(15)	39	39	1,300	No
Receptor_300	97	91	84	(13)	39	39	1,300	No	(7)	39	39	1,300	No
Receptor_301	96	92	82	(14)	39	39	1,300	No	(11)	39	39	1,300	No
Receptor_302	91	89	81	(9)	39	39	1,300	No	(8)	39	39	1,300	No
Receptor_303	88	88	79	(9)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_304	84	89	76	(8)	39	39	1,300	No	(13)	39	39	1,300	No
Receptor_305	82	85	76	(6)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_306	80	84	75	(5)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_307	80	86	77	(3)	39	39	1,300	No	(9)	39	39	1,300	No
Receptor_308	77	85	78	1	39	40	1,300	No	(7)	39	39	1,300	No
Receptor_309	74	80	78	4	39	43	1,300	No	(2)	39	39	1,300	No
Receptor_310	74	73	77	3	39	42	1,300	No	4	39	43	1,300	No
Receptor_311	73	69	75	1	39	41	1,300	No	5	39	45	1,300	No
Receptor_312	72	66	72	1	39	40	1,300	No	6	39	45	1,300	No
Receptor_313	69	63	70	1	39	40	1,300	No	7	39	46	1,300	No
Receptor_314	67	61	69	1	39	41	1,300	No	8	39	47	1,300	No
Receptor_315	64	60	68	3	39	42	1,300	No	8	39	47	1,300	No
Receptor_316	61	58	66	5	39	45	1,300	No	8	39	47	1,300	No
Receptor_317	57	57	64	8	39	47	1,300	No	8	39	47	1,300	No
Receptor_318	54	55	62	9	39	48	1,300	No	7	39	46	1,300	No
Receptor_319	52	53	60	8	39	47	1,300	No	7	39	46	1,300	No
Receptor_320	51	51	58	7	39	46	1,300	No	6	39	46	1,300	No
Receptor_321	50	49	56	6	39	45	1,300	No	6	39	46	1,300	No
Receptor_322	49	47	54	4	39	43	1,300	No	7	39	46	1,300	No
Receptor_323	49	44	52	3	39	42	1,300	No	8	39	47	1,300	No
Receptor_324	48	43	50	3	39	42	1,300	No	7	39	46	1,300	No
Receptor_325	47	42	49	2	39	42	1,300	No	6	39	46	1,300	No
Receptor_326	45	42	47	2	39	41	1,300	No	6	39	45	1,300	No
Receptor_327	84	97	75	(9)	39	39	1,300	No	(22)	39	39	1,300	No
Maximum	176	214	160	11	39	50	1,300	No	8	39	47	1,300	No

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	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_1	10	10	12	2	16	18	105	No	2	16	18	105	No
Receptor_2	10	10	13	2	16	18	105	No	3	16	18	105	No
Receptor_3	11	11	14	3	16	18	105	No	3	16	19	105	No
Receptor_4	12	11	14	3	16	18	105	No	3	16	19	105	No
Receptor_5	12	12	15	3	16	18	105	No	3	16	19	105	No
Receptor_6	13	12	15	3	16	18	105	No	3	16	19	105	No
Receptor_7	13	12	15	3	16	18	105	No	3	16	19	105	No
Receptor_8	12	12	15	3	16	18	105	No	3	16	19	105	No
Receptor_9	12	12	15	3	16	18	105	No	3	16	18	105	No
Receptor_10	12	12	14	2	16	18	105	No	2	16	18	105	No
Receptor_11	12	12	14	2	16	17	105	No	2	16	18	105	No
Receptor_12	12	12	14	1	16	17	105	No	2	16	18	105	No
Receptor_13	12	12	14	1	16	17	105	No	2	16	18	105	No
Receptor_14	13	12	14	1	16	17	105	No	2	16	17	105	No
Receptor_15	13	12	14	1	16	17	105	No	2	16	17	105	No
Receptor_16	13	13	14	1	16	17	105	No	1	16	17	105	No
Receptor_17	13	12	13	1	16	16	105	No	1	16	17	105	No
Receptor_18	12	12	13	1	16	16	105	No	1	16	16	105	No
Receptor_19	12	12	12	0	16	16	105	No	1	16	16	105	No
Receptor_20	11	11	11	0	16	16	105	No	0	16	16	105	No
Receptor_21	10	10	10	0	16	16	105	No	0	16	16	105	No
Receptor_22	9	9	9	(0)	16	16	105	No	0	16	16	105	No
Receptor_23	8	8	8	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_24	8	8	7	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_25	7	7	7	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_26	7	6	7	(0)	16	16	105	No	0	16	16	105	No
Receptor_27	7	6	7	0	16	16	105	No	1	16	17	105	No
Receptor_28	6	6	7	1	16	16	105	No	1	16	17	105	No
Receptor_29	6	6	7	0	16	16	105	No	1	16	17	105	No
Receptor_30	7	6	7	0	16	16	105	No	1	16	17	105	No
Receptor_31	7	6	7	0	16	16	105	No	1	16	17	105	No
Receptor_32	7	7	8	1	16	16	105	No	1	16	17	105	No
Receptor_33	7	7	8	1	16	16	105	No	1	16	17	105	No
Receptor_34	7	7	8	1	16	16	105	No	1	16	17	105	No
Receptor_35	8	7	8	0	16	16	105	No	1	16	17	105	No
Receptor_36	8	8	9	0	16	16	105	No	1	16	17	105	No
Receptor_37	9	8	9	0	16	16	105	No	1	16	16	105	No
Receptor_38	9	9	9	0	16	16	105	No	0	16	16	105	No
Receptor_39	9	9	9	(0)	16	16	105	No	0	16	16	105	No
Receptor_40	10	10	10	(0)	16	16	105	No	0	16	16	105	No
Receptor_41	10	10	10	(0)	16	16	105	No	0	16	16	105	No
Receptor_42	11	10	10	(0)	16	16	105	No	0	16	16	105	No
Receptor_43	10	10	10	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_44	10	10	10	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_45	10	10	10	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_46	11	11	10	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_47	12	12	11	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_48	12	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_49	12	12	12	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_50	13	12	12	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_51	12	12	11	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_52	11	11	10	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_53	10	10	10	0	16	16	105	No	(0)	16	16	105	No
Receptor_54	9	9	9	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_55	9	9	9	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_56	9	9	9	0	16	16	105	No	0	16	16	105	No
Receptor_57	9	9	10	1	16	16	105	No	1	16	16	105	No
Receptor_58	9	9	10	1	16	17	105	No	1	16	17	105	No
Receptor_59	10	10	10	0	16	16	105	No	0	16	16	105	No
Receptor_60	10	10	11	1	16	16	105	No	1	16	16	105	No
Receptor_61	11	11	12	1	16	17	105	No	1	16	17	105	No
Receptor_62	11	11	13	2	16	17	105	No	1	16	17	105	No
Receptor_63	12	12	14	2	16	18	105	No	2	16	18	105	No
Receptor_64	13	13	15	2	16	18	105	No	2	16	18	105	No
Receptor_65	13	14	16	2	16	18	105	No	2	16	18	105	No
Receptor_66	14	15	16	2	16	18	105	No	2	16	17	105	No
Receptor_67	15	15	16	1	16	17	105	No	1	16	17	105	No
Receptor_68	16	16	17	1	16	16	105	No	1	16	16	105	No
Receptor_69	18	17	18	0	16	16	105	No	1	16	17	105	No
Receptor_70	17	17	18	0	16	16	105	No	1	16	17	105	No
Receptor_71	17	16	17	1	16	16	105	No	1	16	17	105	No
Receptor_72	16	15	16	1	16	16	105	No	1	16	17	105	No
Receptor_73	15	15	15	0	16	16	105	No	1	16	16	105	No
Receptor_74	15	14	15	(0)	16	16	105	No	0	16	16	105	No
Receptor_75	16	15	14	(2)	16	16	105	No	(1)	16	16	105	No
Receptor_76	18	17	15	(2)	16	16	105	No	(1)	16	16	105	No
Receptor_77	18	17	15	(3)	16	16	105	No	(2)	16	16	105	No
Receptor_78	18	17	15	(3)	16	16	105	No	(2)	16	16	105	No
Receptor_79	19	18	16	(3)	16	16	105	No	(2)	16	16	105	No
Receptor_80	21	20	17	(3)	16	16	105	No	(3)	16	16	105	No
Receptor_81	22	21	19	(3)	16	16	105	No	(2)	16	16	105	No
Receptor_82	20	20	18	(2)	16	16	105	No	(2)	16	16	105	No
Receptor_83	18	18	17	(2)	16	16	105	No	(1)	16	16	105	No
Receptor_84	17	17	15	(2)	16	16	105	No	(2)	16	16	105	No
Receptor_85	16	16	14	(2)	16	16	105	No	(2)	16	16	105	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	16	15	13	(2)	16	16	105	No	(2)	16	16	105	No
Receptor_87	14	14	13	(2)	16	16	105	No	(2)	16	16	105	No
Receptor_88	13	13	13	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_89	13	13	12	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_90	11	12	12	0	16	16	105	No	0	16	16	105	No
Receptor_91	11	11	11	0	16	16	105	No	0	16	16	105	No
Receptor_92	10	10	10	0	16	16	105	No	0	16	16	105	No
Receptor_93	10	11	11	0	16	16	105	No	0	16	16	105	No
Receptor_94	11	11	11	0	16	16	105	No	0	16	16	105	No
Receptor_95	11	11	11	0	16	16	105	No	0	16	16	105	No
Receptor_96	11	11	12	0	16	16	105	No	0	16	16	105	No
Receptor_97	12	12	12	0	16	16	105	No	(0)	16	16	105	No
Receptor_98	12	13	13	0	16	16	105	No	0	16	16	105	No
Receptor_99	13	14	14	1	16	16	105	No	0	16	16	105	No
Receptor_100	15	15	15	1	16	16	105	No	1	16	16	105	No
Receptor_101	15	15	15	1	16	16	105	No	0	16	16	105	No
Receptor_102	14	15	15	1	16	16	105	No	0	16	16	105	No
Receptor_103	14	15	15	0	16	16	105	No	(0)	16	16	105	No
Receptor_104	14	15	15	1	16	16	105	No	(0)	16	16	105	No
Receptor_105	14	15	15	0	16	16	105	No	(0)	16	16	105	No
Receptor_106	15	16	16	1	16	16	105	No	(0)	16	16	105	No
Receptor_107	16	17	17	1	16	16	105	No	(0)	16	16	105	No
Receptor_108	16	17	17	1	16	16	105	No	(0)	16	16	105	No
Receptor_109	16	17	17	1	16	16	105	No	(0)	16	16	105	No
Receptor_110	16	16	16	1	16	17	105	No	(0)	16	16	105	No
Receptor_111	15	15	15	1	16	16	105	No	(0)	16	16	105	No
Receptor_112	15	16	16	1	16	16	105	No	(0)	16	16	105	No
Receptor_113	15	15	15	1	16	16	105	No	(0)	16	16	105	No
Receptor_114	15	15	14	(0)	16	16	105	No	(0)	16	16	105	No
Receptor_115	15	14	14	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_116	14	14	14	0	16	16	105	No	0	16	16	105	No
Receptor_117	15	15	16	1	16	17	105	No	1	16	16	105	No
Receptor_118	16	17	18	2	16	17	105	No	1	16	16	105	No
Receptor_119	17	19	20	2	16	18	105	No	1	16	17	105	No
Receptor_120	20	21	22	1	16	17	105	No	0	16	16	105	No
Receptor_121	22	22	22	0	16	16	105	No	(0)	16	16	105	No
Receptor_122	23	23	24	1	16	16	105	No	1	16	16	105	No
Receptor_123	22	23	23	1	16	17	105	No	0	16	16	105	No
Receptor_124	21	22	22	1	16	17	105	No	0	16	16	105	No
Receptor_125	21	23	23	1	16	17	105	No	(1)	16	16	105	No
Receptor_126	20	22	22	2	16	17	105	No	(0)	16	16	105	No
Receptor_127	19	20	20	1	16	17	105	No	(0)	16	16	105	No
Receptor_128	18	19	19	1	16	17	105	No	0	16	16	105	No
Receptor_129	17	18	18	1	16	17	105	No	0	16	16	105	No
Receptor_130	16	17	18	1	16	17	105	No	0	16	16	105	No
Receptor_131	16	17	17	1	16	17	105	No	0	16	16	105	No
Receptor_132	14	15	16	1	16	17	105	No	0	16	16	105	No
Receptor_133	13	14	15	1	16	17	105	No	0	16	16	105	No
Receptor_134	13	14	14	1	16	17	105	No	0	16	16	105	No
Receptor_135	12	13	13	1	16	17	105	No	0	16	16	105	No
Receptor_136	11	12	12	1	16	17	105	No	0	16	16	105	No
Receptor_137	11	11	12	1	16	17	105	No	0	16	16	105	No
Receptor_138	10	11	11	1	16	17	105	No	(0)	16	16	105	No
Receptor_139	10	11	11	0	16	16	105	No	(0)	16	16	105	No
Receptor_140	10	11	11	0	16	16	105	No	(0)	16	16	105	No
Receptor_141	10	10	11	1	16	16	105	No	1	16	16	105	No
Receptor_142	10	10	11	0	16	16	105	No	1	16	16	105	No
Receptor_143	11	11	11	(0)	16	16	105	No	0	16	16	105	No
Receptor_144	12	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_145	12	12	12	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_146	12	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_147	12	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_148	11	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_149	11	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_150	11	11	11	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_151	11	10	11	(0)	16	16	105	No	0	16	16	105	No
Receptor_152	11	10	11	(0)	16	16	105	No	1	16	16	105	No
Receptor_153	11	10	11	(0)	16	16	105	No	1	16	16	105	No
Receptor_154	11	11	11	(0)	16	16	105	No	0	16	16	105	No
Receptor_155	11	10	11	(1)	16	16	105	No	0	16	16	105	No
Receptor_156	11	10	11	(1)	16	16	105	No	1	16	16	105	No
Receptor_157	12	11	11	(1)	16	16	105	No	1	16	16	105	No
Receptor_158	12	11	11	(1)	16	16	105	No	0	16	16	105	No
Receptor_159	12	11	11	(1)	16	16	105	No	0	16	16	105	No
Receptor_160	13	11	12	(1)	16	16	105	No	0	16	16	105	No
Receptor_161	13	12	12	(1)	16	16	105	No	1	16	16	105	No
Receptor_162	14	12	13	(1)	16	16	105	No	0	16	16	105	No
Receptor_163	14	13	14	(0)	16	16	105	No	0	16	16	105	No
Receptor_164	14	14	15	0	16	16	105	No	0	16	16	105	No
Receptor_165	15	16	16	1	16	17	105	No	0	16	16	105	No
Receptor_166	16	17	17	1	16	17	105	No	0	16	16	105	No
Receptor_167	18	19	19	1	16	17	105	No	0	16	16	105	No
Receptor_168	20	21	21	1	16	17	105	No	0	16	16	105	No
Receptor_169	21	22	22	1	16	17	105	No	(0)	16	16	105	No
Receptor_170	21	21	21	0	16	16	105	No	0	16	16	105	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	19	19	19	(0)	16	16	105	No	0	16	16	105	No
Receptor_172	18	20	19	1	16	17	105	No	(0)	16	16	105	No
Receptor_173	19	21	20	1	16	17	105	No	(0)	16	16	105	No
Receptor_174	19	20	20	1	16	17	105	No	(0)	16	16	105	No
Receptor_175	18	19	19	1	16	17	105	No	(0)	16	16	105	No
Receptor_176	18	18	18	0	16	16	105	No	(0)	16	16	105	No
Receptor_177	18	17	17	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_178	17	16	16	(1)	16	16	105	No	0	16	16	105	No
Receptor_179	17	15	15	(1)	16	16	105	No	0	16	16	105	No
Receptor_180	16	14	15	(1)	16	16	105	No	0	16	16	105	No
Receptor_181	15	14	14	(2)	16	16	105	No	0	16	16	105	No
Receptor_182	15	13	14	(1)	16	16	105	No	1	16	16	105	No
Receptor_183	14	13	14	(0)	16	16	105	No	1	16	16	105	No
Receptor_184	15	14	14	(1)	16	16	105	No	0	16	16	105	No
Receptor_185	15	14	14	(0)	16	16	105	No	0	16	16	105	No
Receptor_186	15	14	15	0	16	16	105	No	1	16	17	105	No
Receptor_187	14	14	15	0	16	16	105	No	1	16	17	105	No
Receptor_188	14	14	15	1	16	16	105	No	1	16	17	105	No
Receptor_189	15	15	16	1	16	17	105	No	1	16	17	105	No
Receptor_190	15	15	16	1	16	17	105	No	1	16	17	105	No
Receptor_191	14	14	15	1	16	17	105	No	1	16	17	105	No
Receptor_192	13	13	14	1	16	16	105	No	1	16	17	105	No
Receptor_193	12	12	13	1	16	16	105	No	1	16	17	105	No
Receptor_194	11	11	12	1	16	16	105	No	1	16	16	105	No
Receptor_195	11	10	11	1	16	16	105	No	1	16	16	105	No
Receptor_196	10	10	11	0	16	16	105	No	1	16	16	105	No
Receptor_197	10	10	10	0	16	16	105	No	1	16	16	105	No
Receptor_198	9	9	10	1	16	16	105	No	1	16	16	105	No
Receptor_199	9	9	10	1	16	16	105	No	1	16	16	105	No
Receptor_200	9	9	9	0	16	16	105	No	1	16	16	105	No
Receptor_201	9	9	9	0	16	16	105	No	1	16	16	105	No
Receptor_202	9	9	9	0	16	16	105	No	1	16	16	105	No
Receptor_203	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_204	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_205	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_206	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_207	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_208	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_209	9	9	9	1	16	16	105	No	1	16	16	105	No
Receptor_210	9	9	10	1	16	16	105	No	1	16	16	105	No
Receptor_211	9	9	10	1	16	16	105	No	0	16	16	105	No
Receptor_212	10	10	10	0	16	16	105	No	0	16	16	105	No
Receptor_213	10	10	10	0	16	16	105	No	0	16	16	105	No
Receptor_214	10	11	10	0	16	16	105	No	(0)	16	16	105	No
Receptor_215	11	11	10	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_216	11	12	11	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_217	12	13	12	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_218	12	13	13	0	16	16	105	No	(0)	16	16	105	No
Receptor_219	13	14	13	0	16	16	105	No	(0)	16	16	105	No
Receptor_220	14	14	14	0	16	16	105	No	0	16	16	105	No
Receptor_221	15	15	16	0	16	16	105	No	0	16	16	105	No
Receptor_222	16	16	17	1	16	16	105	No	1	16	16	105	No
Receptor_223	16	16	17	1	16	16	105	No	1	16	17	105	No
Receptor_224	16	16	17	1	16	17	105	No	1	16	17	105	No
Receptor_225	15	15	16	1	16	17	105	No	1	16	17	105	No
Receptor_226	14	14	15	1	16	17	105	No	1	16	17	105	No
Receptor_227	17	17	18	1	16	17	105	No	1	16	17	105	No
Receptor_228	20	19	20	1	16	16	105	No	1	16	17	105	No
Receptor_229	23	22	24	1	16	16	105	No	1	16	17	105	No
Receptor_230	24	23	24	0	16	16	105	No	1	16	17	105	No
Receptor_231	24	23	24	0	16	16	105	No	1	16	16	105	No
Receptor_232	27	26	27	(0)	16	16	105	No	0	16	16	105	No
Receptor_233	31	30	30	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_234	36	35	35	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_235	39	38	38	(1)	16	16	105	No	(0)	16	16	105	No
Receptor_236	46	46	44	(2)	16	16	105	No	(2)	16	16	105	No
Receptor_237	37	38	34	(3)	16	16	105	No	(3)	16	16	105	No
Receptor_238	32	34	28	(3)	16	16	105	No	(5)	16	16	105	No
Receptor_239	28	30	25	(3)	16	16	105	No	(5)	16	16	105	No
Receptor_240	29	27	27	(2)	16	16	105	No	0	16	16	105	No
Receptor_241	24	23	24	(1)	16	16	105	No	0	16	16	105	No
Receptor_242	21	21	21	(0)	16	16	105	No	0	16	16	105	No
Receptor_243	19	18	19	0	16	16	105	No	0	16	16	105	No
Receptor_244	17	17	17	0	16	16	105	No	0	16	16	105	No
Receptor_245	14	15	15	0	16	16	105	No	(0)	16	16	105	No
Receptor_246	15	15	15	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_247	15	15	15	0	16	16	105	No	0	16	16	105	No
Receptor_248	14	13	14	1	16	16	105	No	1	16	17	105	No
Receptor_249	11	11	12	1	16	17	105	No	1	16	17	105	No
Receptor_250	9	10	10	0	16	16	105	No	(0)	16	16	105	No
Receptor_251	8	9	9	0	16	16	105	No	(1)	16	16	105	No
Receptor_252	8	9	8	0	16	16	105	No	(1)	16	16	105	No
Receptor_253	8	9	9	1	16	16	105	No	(0)	16	16	105	No
Receptor_254	8	9	9	1	16	17	105	No	(0)	16	16	105	No
Receptor_255	9	10	10	1	16	17	105	No	(0)	16	16	105	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_256	9	10	10	1	16	17	105	No	(0)	16	16	105	No
Receptor_257	10	11	11	1	16	17	105	No	(0)	16	16	105	No
Receptor_258	10	12	12	1	16	17	105	No	(0)	16	16	105	No
Receptor_259	10	11	11	1	16	17	105	No	(0)	16	16	105	No
Receptor_260	9	11	10	1	16	17	105	No	(0)	16	16	105	No
Receptor_261	10	11	11	1	16	17	105	No	(0)	16	16	105	No
Receptor_262	10	12	11	1	16	16	105	No	(1)	16	16	105	No
Receptor_263	10	11	10	0	16	16	105	No	(1)	16	16	105	No
Receptor_264	9	10	9	0	16	16	105	No	(1)	16	16	105	No
Receptor_265	8	9	8	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_266	8	8	7	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_267	8	9	8	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_268	9	9	8	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_269	9	9	8	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_270	9	10	8	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_271	9	10	8	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_272	9	10	9	0	16	16	105	No	(1)	16	16	105	No
Receptor_273	9	10	10	1	16	16	105	No	(0)	16	16	105	No
Receptor_274	9	11	9	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_275	9	11	9	(0)	16	16	105	No	(2)	16	16	105	No
Receptor_276	10	11	10	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_277	11	11	11	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_278	12	12	11	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_279	13	13	12	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_280	14	14	13	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_281	14	14	13	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_282	15	15	14	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_283	15	16	15	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_284	16	16	16	(0)	16	16	105	No	(1)	16	16	105	No
Receptor_285	16	17	17	0	16	16	105	No	(0)	16	16	105	No
Receptor_286	18	19	19	0	16	16	105	No	(0)	16	16	105	No
Receptor_287	20	20	20	0	16	16	105	No	(0)	16	16	105	No
Receptor_288	21	22	22	0	16	16	105	No	(0)	16	16	105	No
Receptor_289	21	22	22	0	16	16	105	No	(0)	16	16	105	No
Receptor_290	20	21	21	1	16	17	105	No	0	16	16	105	No
Receptor_291	19	20	21	2	16	18	105	No	1	16	17	105	No
Receptor_292	18	19	20	3	16	18	105	No	1	16	17	105	No
Receptor_293	17	19	21	3	16	19	105	No	2	16	17	105	No
Receptor_294	17	19	21	4	16	20	105	No	2	16	18	105	No
Receptor_295	17	18	21	4	16	20	105	No	3	16	19	105	No
Receptor_296	18	17	21	2	16	18	105	No	3	16	19	105	No
Receptor_297	20	18	20	1	16	16	105	No	2	16	18	105	No
Receptor_298	21	19	20	(1)	16	16	105	No	1	16	16	105	No
Receptor_299	22	20	20	(2)	16	16	105	No	(0)	16	16	105	No
Receptor_300	23	21	21	(2)	16	16	105	No	(0)	16	16	105	No
Receptor_301	23	21	21	(2)	16	16	105	No	(0)	16	16	105	No
Receptor_302	22	23	21	(1)	16	16	105	No	(1)	16	16	105	No
Receptor_303	22	23	22	(1)	16	16	105	No	(2)	16	16	105	No
Receptor_304	23	23	21	(1)	16	16	105	No	(2)	16	16	105	No
Receptor_305	22	24	21	(1)	16	16	105	No	(2)	16	16	105	No
Receptor_306	21	23	21	0	16	16	105	No	(1)	16	16	105	No
Receptor_307	21	22	21	1	16	17	105	No	(1)	16	16	105	No
Receptor_308	19	21	21	2	16	18	105	No	0	16	16	105	No
Receptor_309	18	20	21	3	16	19	105	No	1	16	17	105	No
Receptor_310	18	18	20	3	16	18	105	No	2	16	18	105	No
Receptor_311	17	18	19	2	16	18	105	No	2	16	17	105	No
Receptor_312	16	18	19	3	16	18	105	No	1	16	17	105	No
Receptor_313	16	17	18	3	16	18	105	No	1	16	17	105	No
Receptor_314	15	17	18	3	16	19	105	No	2	16	17	105	No
Receptor_315	14	16	18	4	16	19	105	No	2	16	18	105	No
Receptor_316	14	15	18	4	16	19	105	No	2	16	18	105	No
Receptor_317	13	15	17	4	16	20	105	No	3	16	18	105	No
Receptor_318	13	14	17	4	16	20	105	No	3	16	18	105	No
Receptor_319	12	13	16	4	16	19	105	No	3	16	18	105	No
Receptor_320	12	13	16	4	16	19	105	No	3	16	18	105	No
Receptor_321	12	13	15	4	16	19	105	No	3	16	18	105	No
Receptor_322	11	12	15	3	16	19	105	No	3	16	18	105	No
Receptor_323	11	11	14	3	16	19	105	No	3	16	18	105	No
Receptor_324	10	11	13	3	16	19	105	No	2	16	18	105	No
Receptor_325	10	10	13	3	16	19	105	No	2	16	18	105	No
Receptor_326	10	10	12	2	16	18	105	No	2	16	18	105	No
Receptor_327	23	22	21	(3)	16	16	105	No	(1)	16	16	105	No
Maximum	46	46	44	4	16	20	105	No	3	16	19	105	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project	Ambient	Total	Threshold	Exceeds?	Project	Ambient	Total	Threshold	Exceeds?
	Baseline	Project	Project										
Receptor_1	2	2	3	1	3	3	80	No	1	3	3	80	No
Receptor_2	2	2	3	1	3	3	80	No	1	3	3	80	No
Receptor_3	2	2	3	1	3	3	80	No	1	3	3	80	No
Receptor_4	2	2	3	1	3	3	80	No	1	3	3	80	No
Receptor_5	2	2	3	1	3	3	80	No	0	3	3	80	No
Receptor_6	2	2	3	1	3	3	80	No	0	3	3	80	No
Receptor_7	2	2	3	1	3	3	80	No	0	3	3	80	No
Receptor_8	2	2	3	1	3	3	80	No	0	3	3	80	No
Receptor_9	2	2	3	1	3	3	80	No	0	3	3	80	No
Receptor_10	2	2	2	1	3	3	80	No	0	3	3	80	No
Receptor_11	2	2	2	1	3	3	80	No	0	3	3	80	No
Receptor_12	2	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_13	2	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_14	2	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_15	1	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_16	1	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_17	1	1	2	0	3	3	80	No	0	3	3	80	No
Receptor_18	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_19	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_20	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_21	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_22	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_23	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_24	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_25	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_26	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_27	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_28	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_29	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_30	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_31	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_32	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_33	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_34	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_35	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_36	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_37	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_38	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_39	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_40	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_41	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_42	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_43	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_44	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_45	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_46	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_47	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_48	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_49	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_50	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_51	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_52	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_53	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_54	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_55	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_56	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_57	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_58	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_59	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_60	1	1	1	0	3	3	80	No	0	3	3	80	No
Receptor_61	1	1	2	0	3	3	80	No	0	3	3	80	No
Receptor_62	1	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_63	2	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_64	2	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_65	2	2	2	0	3	3	80	No	0	3	3	80	No
Receptor_66	2	2	3	1	3	3	80	No	0	3	3	80	No
Receptor_67	2	3	3	1	3	3	80	No	0	3	3	80	No
Receptor_68	2	3	3	1	3	3	80	No	0	3	3	80	No
Receptor_69	3	3	3	1	3	3	80	No	0	3	3	80	No
Receptor_70	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_71	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_72	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_73	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_74	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_75	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_76	4	4	4	1	3	3	80	No	0	3	3	80	No
Receptor_77	4	4	4	1	3	3	80	No	0	3	3	80	No
Receptor_78	4	4	4	1	3	3	80	No	0	3	3	80	No
Receptor_79	4	4	5	1	3	3	80	No	0	3	3	80	No
Receptor_80	5	5	6	1	3	3	80	No	0	3	3	80	No
Receptor_81	6	6	7	1	3	3	80	No	0	3	3	80	No
Receptor_82	6	6	6	1	3	3	80	No	0	3	3	80	No
Receptor_83	5	6	6	1	3	3	80	No	0	3	3	80	No
Receptor_84	4	5	5	1	3	3	80	No	0	3	3	80	No
Receptor_85	4	4	4	1	3	3	80	No	0	3	3	80	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_86	3	3	4	1	3	3	80	No	0	3	3	80	No
Receptor_87	3	3	4	0	3	3	80	No	0	3	3	80	No
Receptor_88	3	3	4	0	3	3	80	No	0	3	3	80	No
Receptor_89	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_90	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_91	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_92	2	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_93	2	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_94	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_95	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_96	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_97	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_98	3	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_99	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_100	4	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_101	4	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_102	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_103	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_104	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_105	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_106	6	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_107	6	6	7	0	3	3	80	No	0	3	3	80	No
Receptor_108	6	6	7	0	3	3	80	No	0	3	3	80	No
Receptor_109	6	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_110	6	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_111	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_112	5	5	6	0	3	3	80	No	0	3	3	80	No
Receptor_113	5	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_114	5	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_115	5	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_116	5	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_117	6	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_118	7	7	7	0	3	3	80	No	0	3	3	80	No
Receptor_119	8	8	8	0	3	3	80	No	(0)	3	3	80	No
Receptor_120	9	9	9	0	3	3	80	No	(0)	3	3	80	No
Receptor_121	9	9	9	0	3	3	80	No	(0)	3	3	80	No
Receptor_122	9	10	10	0	3	3	80	No	(0)	3	3	80	No
Receptor_123	9	9	9	0	3	3	80	No	(0)	3	3	80	No
Receptor_124	8	9	9	0	3	3	80	No	(0)	3	3	80	No
Receptor_125	9	9	9	0	3	3	80	No	(0)	3	3	80	No
Receptor_126	8	9	8	0	3	3	80	No	(0)	3	3	80	No
Receptor_127	8	8	8	0	3	3	80	No	(0)	3	3	80	No
Receptor_128	7	7	7	0	3	3	80	No	0	3	3	80	No
Receptor_129	7	7	7	0	3	3	80	No	0	3	3	80	No
Receptor_130	7	7	7	0	3	3	80	No	0	3	3	80	No
Receptor_131	6	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_132	6	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_133	5	6	6	0	3	3	80	No	0	3	3	80	No
Receptor_134	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_135	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_136	5	5	5	0	3	3	80	No	0	3	3	80	No
Receptor_137	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_138	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_139	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_140	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_141	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_142	4	4	4	(0)	3	3	80	No	0	3	3	80	No
Receptor_143	4	4	4	(0)	3	3	80	No	0	3	3	80	No
Receptor_144	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_145	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_146	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_147	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_148	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_149	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_150	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_151	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_152	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_153	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_154	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_155	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_156	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_157	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_158	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_159	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_160	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_161	6	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_162	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_163	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_164	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_165	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_166	7	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_167	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_168	8	7	7	(1)	3	3	80	No	(0)	3	3	80	No
Receptor_169	8	8	8	(1)	3	3	80	No	(0)	3	3	80	No
Receptor_170	8	8	7	(1)	3	3	80	No	(0)	3	3	80	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline					2019 With Project - 2019 Without Project				
	2012	2019 NO	2019	Project					Project				
	Baseline	Project	Project	Increase	Ambient	Total	Threshold	Exceeds?	Increase	Ambient	Total	Threshold	Exceeds?
Receptor_171	8	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_172	8	8	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_173	9	8	8	(1)	3	3	80	No	(0)	3	3	80	No
Receptor_174	8	8	8	(1)	3	3	80	No	(0)	3	3	80	No
Receptor_175	8	8	8	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_176	8	8	8	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_177	8	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_178	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_179	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_180	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_181	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_182	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_183	7	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_184	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_185	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_186	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_187	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_188	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_189	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_190	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_191	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_192	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_193	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_194	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_195	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_196	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_197	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_198	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_199	4	4	4	0	3	3	80	No	0	3	3	80	No
Receptor_200	4	3	4	0	3	3	80	No	0	3	3	80	No
Receptor_201	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_202	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_203	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_204	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_205	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_206	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_207	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_208	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_209	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_210	3	3	3	0	3	3	80	No	0	3	3	80	No
Receptor_211	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_212	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_213	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_214	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_215	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_216	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_217	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_218	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_219	4	4	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_220	4	5	4	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_221	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_222	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_223	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_224	5	6	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_225	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_226	5	5	5	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_227	6	6	6	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_228	7	7	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_229	8	8	8	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_230	8	8	8	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_231	7	8	7	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_232	8	9	8	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_233	10	10	10	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_234	11	12	11	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_235	13	13	13	(0)	3	3	80	No	(0)	3	3	80	No
Receptor_236	15	15	15	(0)	3	3	80	No	(1)	3	3	80	No
Receptor_237	12	12	12	0	3	3	80	No	(0)	3	3	80	No
Receptor_238	9	9	9	0	3	3	80	No	(0)	3	3	80	No
Receptor_239	7	8	7	0	3	3	80	No	(0)	3	3	80	No
Receptor_240	6	7	7	0	3	3	80	No	(0)	3	3	80	No
Receptor_241	5	5	5	0	3	3	80	No	(0)	3	3	80	No
Receptor_242	4	4	4	0	3	3	80	No	(0)	3	3	80	No
Receptor_243	4	4	4	0	3	3	80	No	(0)	3	3	80	No
Receptor_244	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_245	3	3	3	0	3	3	80	No	(0)	3	3	80	No
Receptor_246	2	2	2	0	3	3	80	No	(0)	3	3	80	No
Receptor_247	2	2	2	0	3	3	80	No	(0)	3	3	80	No
Receptor_248	2	2	2	0	3	3	80	No	(0)	3	3	80	No
Receptor_249	2	2	2	0	3	3	80	No	(0)	3	3	80	No
Receptor_250	1	1	1	0	3	3	80	No	(0)	3	3	80	No
Receptor_251	1	1	1	0	3	3	80	No	(0)	3	3	80	No
Receptor_252	1	1	1	0	3	3	80	No	(0)	3	3	80	No
Receptor_253	1	1	1	0	3	3	80	No	(0)	3	3	80	No
Receptor_254	1	1	1	0	3	3	80	No	(0)	3	3	80	No
Receptor_255	1	1	1	0	3	3	80	No	(0)	3	3	80	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline						2019 With Project - 2019 Without Project					
	2012	2019 NO	2019	Project		Total	Threshold	Exceeds?		Project		Total	Threshold	Exceeds?	
	Baseline	Project	Project	Increase	Ambient					Increase	Ambient				
Receptor_256	1	1	1	0	3	3	80	No		(0)	3	3	80	No	
Receptor_257	1	2	1	(0)	3	3	80	No		(0)	3	3	80	No	
Receptor_258	2	2	2	(0)	3	3	80	No		(0)	3	3	80	No	
Receptor_259	1	1	1	0	3	3	80	No		(0)	3	3	80	No	
Receptor_260	1	1	1	0	3	3	80	No		(0)	3	3	80	No	
Receptor_261	1	1	1	0	3	3	80	No		(0)	3	3	80	No	
Receptor_262	1	1	1	0	3	3	80	No		(0)	3	3	80	No	
Receptor_263	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_264	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_265	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_266	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_267	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_268	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_269	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_270	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_271	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_272	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_273	1	1	1	0	3	3	80	No		0	3	3	80	No	
Receptor_274	2	2	2	0	3	3	80	No		0	3	3	80	No	
Receptor_275	2	2	2	0	3	3	80	No		0	3	3	80	No	
Receptor_276	2	2	2	0	3	3	80	No		0	3	3	80	No	
Receptor_277	2	2	2	0	3	3	80	No		0	3	3	80	No	
Receptor_278	2	2	2	0	3	3	80	No		0	3	3	80	No	
Receptor_279	3	3	3	(0)	3	3	80	No		0	3	3	80	No	
Receptor_280	3	3	3	(0)	3	3	80	No		0	3	3	80	No	
Receptor_281	3	3	3	(0)	3	3	80	No		0	3	3	80	No	
Receptor_282	3	3	3	(0)	3	3	80	No		0	3	3	80	No	
Receptor_283	3	3	3	(0)	3	3	80	No		0	3	3	80	No	
Receptor_284	4	3	4	(0)	3	3	80	No		0	3	3	80	No	
Receptor_285	4	4	4	0	3	3	80	No		0	3	3	80	No	
Receptor_286	4	4	4	0	3	3	80	No		0	3	3	80	No	
Receptor_287	5	5	5	0	3	3	80	No		0	3	3	80	No	
Receptor_288	5	5	6	0	3	3	80	No		0	3	3	80	No	
Receptor_289	5	5	6	0	3	3	80	No		0	3	3	80	No	
Receptor_290	5	5	5	0	3	3	80	No		0	3	3	80	No	
Receptor_291	5	4	5	0	3	3	80	No		0	3	3	80	No	
Receptor_292	4	4	4	0	3	3	80	No		0	3	3	80	No	
Receptor_293	4	4	4	0	3	3	80	No		0	3	3	80	No	
Receptor_294	4	4	5	0	3	3	80	No		0	3	3	80	No	
Receptor_295	4	4	5	0	3	3	80	No		0	3	3	80	No	
Receptor_296	5	4	5	0	3	3	80	No		1	3	3	80	No	
Receptor_297	5	4	5	0	3	3	80	No		1	3	3	80	No	
Receptor_298	5	5	5	0	3	3	80	No		1	3	3	80	No	
Receptor_299	5	5	5	0	3	3	80	No		1	3	3	80	No	
Receptor_300	5	5	5	0	3	3	80	No		1	3	3	80	No	
Receptor_301	5	5	5	1	3	3	80	No		1	3	3	80	No	
Receptor_302	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_303	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_304	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_305	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_306	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_307	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_308	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_309	5	5	6	1	3	3	80	No		1	3	3	80	No	
Receptor_310	5	5	6	1	3	4	80	No		1	3	4	80	No	
Receptor_311	5	5	6	1	3	4	80	No		1	3	4	80	No	
Receptor_312	4	4	5	1	3	4	80	No		1	3	4	80	No	
Receptor_313	4	4	5	1	3	4	80	No		1	3	4	80	No	
Receptor_314	4	4	5	1	3	4	80	No		1	3	4	80	No	
Receptor_315	4	4	5	1	3	4	80	No		1	3	4	80	No	
Receptor_316	4	4	5	1	3	4	80	No		1	3	3	80	No	
Receptor_317	3	4	4	1	3	4	80	No		1	3	3	80	No	
Receptor_318	3	3	4	1	3	4	80	No		1	3	3	80	No	
Receptor_319	3	3	4	1	3	3	80	No		1	3	3	80	No	
Receptor_320	3	3	4	1	3	3	80	No		1	3	3	80	No	
Receptor_321	3	3	4	1	3	3	80	No		1	3	3	80	No	
Receptor_322	3	3	4	1	3	3	80	No		1	3	3	80	No	
Receptor_323	3	3	3	1	3	3	80	No		1	3	3	80	No	
Receptor_324	3	3	3	1	3	3	80	No		1	3	3	80	No	
Receptor_325	2	3	3	1	3	3	80	No		1	3	3	80	No	
Receptor_326	2	2	3	1	3	3	80	No		1	3	3	80	No	
Receptor_327	11	10	10	(1)	3	3	80	No		(1)	3	3	80	No	
Maximum	15	15	15	1	3	4	80	No		1	3	4	80	No	

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_1	3	3	3	0.36	2.50	No	0.38	2.50	No
Receptor_2	3	3	3	0.32	2.50	No	0.27	2.50	No
Receptor_3	3	3	3	0.38	2.50	No	0.22	2.50	No
Receptor_4	3	3	3	0.52	2.50	No	0.33	2.50	No
Receptor_5	3	3	4	0.56	2.50	No	0.41	2.50	No
Receptor_6	3	3	4	0.57	2.50	No	0.44	2.50	No
Receptor_7	3	3	4	0.49	2.50	No	0.43	2.50	No
Receptor_8	3	3	4	0.35	2.50	No	0.37	2.50	No
Receptor_9	3	3	4	0.18	2.50	No	0.27	2.50	No
Receptor_10	4	3	4	0.13	2.50	No	0.29	2.50	No
Receptor_11	4	3	4	0.16	2.50	No	0.35	2.50	No
Receptor_12	4	3	4	0.19	2.50	No	0.33	2.50	No
Receptor_13	4	4	4	0.24	2.50	No	0.29	2.50	No
Receptor_14	4	4	4	0.28	2.50	No	0.24	2.50	No
Receptor_15	4	4	4	0.30	2.50	No	0.19	2.50	No
Receptor_16	3	4	4	0.30	2.50	No	0.16	2.50	No
Receptor_17	3	3	4	0.28	2.50	No	0.15	2.50	No
Receptor_18	3	3	3	0.23	2.50	No	0.16	2.50	No
Receptor_19	3	3	3	0.16	2.50	No	0.16	2.50	No
Receptor_20	3	3	3	0.09	2.50	No	0.06	2.50	No
Receptor_21	2	2	2	0.03	2.50	No	(0.06)	2.50	No
Receptor_22	2	2	2	0.14	2.50	No	0.01	2.50	No
Receptor_23	2	2	2	0.31	2.50	No	0.23	2.50	No
Receptor_24	2	2	2	0.31	2.50	No	0.19	2.50	No
Receptor_25	2	2	2	0.27	2.50	No	0.07	2.50	No
Receptor_26	2	2	2	0.14	2.50	No	0.05	2.50	No
Receptor_27	2	2	2	0.10	2.50	No	0.19	2.50	No
Receptor_28	2	2	2	0.07	2.50	No	0.31	2.50	No
Receptor_29	2	2	2	0.08	2.50	No	0.33	2.50	No
Receptor_30	2	2	2	0.09	2.50	No	0.30	2.50	No
Receptor_31	2	2	2	0.10	2.50	No	0.27	2.50	No
Receptor_32	2	2	2	0.05	2.50	No	0.32	2.50	No
Receptor_33	2	2	2	0.06	2.50	No	0.33	2.50	No
Receptor_34	2	2	2	0.06	2.50	No	0.33	2.50	No
Receptor_35	3	2	3	0.03	2.50	No	0.30	2.50	No
Receptor_36	3	2	3	0.01	2.50	No	0.25	2.50	No
Receptor_37	3	3	3	(0.01)	2.50	No	0.20	2.50	No
Receptor_38	3	3	3	(0.03)	2.50	No	0.13	2.50	No
Receptor_39	3	3	3	(0.05)	2.50	No	0.05	2.50	No
Receptor_40	3	3	3	(0.05)	2.50	No	0.06	2.50	No
Receptor_41	3	3	3	(0.07)	2.50	No	0.02	2.50	No
Receptor_42	3	3	3	(0.08)	2.50	No	(0.03)	2.50	No
Receptor_43	3	3	3	(0.10)	2.50	No	(0.08)	2.50	No
Receptor_44	3	3	3	(0.11)	2.50	No	(0.14)	2.50	No
Receptor_45	3	3	3	(0.13)	2.50	No	(0.20)	2.50	No
Receptor_46	3	3	3	(0.14)	2.50	No	(0.18)	2.50	No
Receptor_47	3	3	3	(0.14)	2.50	No	(0.15)	2.50	No
Receptor_48	3	3	3	(0.16)	2.50	No	(0.22)	2.50	No
Receptor_49	3	3	3	(0.16)	2.50	No	(0.21)	2.50	No
Receptor_50	3	3	3	(0.19)	2.50	No	(0.28)	2.50	No
Receptor_51	3	3	3	(0.20)	2.50	No	(0.33)	2.50	No
Receptor_52	3	3	3	(0.22)	2.50	No	(0.22)	2.50	No
Receptor_53	3	3	3	(0.42)	2.50	No	(0.03)	2.50	No
Receptor_54	3	3	3	(0.55)	2.50	No	(0.14)	2.50	No
Receptor_55	3	3	2	(0.55)	2.50	No	(0.16)	2.50	No
Receptor_56	3	3	2	(0.58)	2.50	No	(0.28)	2.50	No
Receptor_57	3	3	2	(0.60)	2.50	No	(0.31)	2.50	No
Receptor_58	3	3	2	(0.63)	2.50	No	(0.33)	2.50	No
Receptor_59	3	3	3	(0.61)	2.50	No	(0.19)	2.50	No
Receptor_60	3	3	3	(0.68)	2.50	No	(0.26)	2.50	No
Receptor_61	3	3	3	(0.69)	2.50	No	(0.27)	2.50	No
Receptor_62	4	3	3	(0.65)	2.50	No	(0.23)	2.50	No
Receptor_63	4	3	3	(0.56)	2.50	No	(0.15)	2.50	No
Receptor_64	4	3	3	(0.40)	2.50	No	(0.02)	2.50	No
Receptor_65	4	3	3	(0.20)	2.50	No	0.07	2.50	No
Receptor_66	3	3	4	0.04	2.50	No	0.15	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_67	3	3	4	0.37	2.50	No	0.33	2.50	No
Receptor_68	3	3	4	0.54	2.50	No	0.54	2.50	No
Receptor_69	4	4	4	0.59	2.50	No	0.53	2.50	No
Receptor_70	3	4	4	0.76	2.50	No	0.64	2.50	No
Receptor_71	4	4	4	0.54	2.50	No	0.47	2.50	No
Receptor_72	4	4	4	0.23	2.50	No	0.03	2.50	No
Receptor_73	3	4	4	0.07	2.50	No	(0.31)	2.50	No
Receptor_74	3	4	4	0.33	2.50	No	(0.26)	2.50	No
Receptor_75	3	4	4	0.28	2.50	No	(0.06)	2.50	No
Receptor_76	4	4	4	0.21	2.50	No	(0.13)	2.50	No
Receptor_77	4	4	4	0.15	2.50	No	(0.33)	2.50	No
Receptor_78	4	4	4	0.04	2.50	No	(0.43)	2.50	No
Receptor_79	4	5	4	(0.09)	2.50	No	(0.51)	2.50	No
Receptor_80	5	5	4	(0.21)	2.50	No	(0.56)	2.50	No
Receptor_81	5	5	5	(0.32)	2.50	No	(0.62)	2.50	No
Receptor_82	5	5	4	(0.37)	2.50	No	(0.64)	2.50	No
Receptor_83	4	5	4	(0.34)	2.50	No	(0.59)	2.50	No
Receptor_84	4	4	4	(0.35)	2.50	No	(0.63)	2.50	No
Receptor_85	4	4	4	(0.31)	2.50	No	(0.60)	2.50	No
Receptor_86	4	4	3	(0.22)	2.50	No	(0.48)	2.50	No
Receptor_87	3	4	3	(0.27)	2.50	No	(0.54)	2.50	No
Receptor_88	3	4	3	(0.17)	2.50	No	(0.46)	2.50	No
Receptor_89	3	3	3	(0.14)	2.50	No	(0.39)	2.50	No
Receptor_90	3	3	3	(0.11)	2.50	No	(0.39)	2.50	No
Receptor_91	3	3	3	(0.07)	2.50	No	(0.39)	2.50	No
Receptor_92	3	3	3	(0.13)	2.50	No	(0.39)	2.50	No
Receptor_93	3	3	3	(0.27)	2.50	No	(0.40)	2.50	No
Receptor_94	3	3	3	(0.34)	2.50	No	(0.13)	2.50	No
Receptor_95	3	3	3	(0.31)	2.50	No	(0.19)	2.50	No
Receptor_96	3	3	3	(0.21)	2.50	No	(0.27)	2.50	No
Receptor_97	3	3	3	(0.12)	2.50	No	(0.27)	2.50	No
Receptor_98	3	4	3	(0.08)	2.50	No	(0.27)	2.50	No
Receptor_99	4	4	4	0.07	2.50	No	(0.18)	2.50	No
Receptor_100	4	4	4	0.29	2.50	No	0.04	2.50	No
Receptor_101	4	4	4	0.44	2.50	No	(0.19)	2.50	No
Receptor_102	4	5	4	0.29	2.50	No	(0.64)	2.50	No
Receptor_103	4	5	4	0.16	2.50	No	(0.69)	2.50	No
Receptor_104	4	4	4	0.40	2.50	No	(0.17)	2.50	No
Receptor_105	4	4	4	0.27	2.50	No	(0.04)	2.50	No
Receptor_106	4	5	5	0.25	2.50	No	(0.06)	2.50	No
Receptor_107	5	5	5	0.23	2.50	No	(0.09)	2.50	No
Receptor_108	5	5	5	0.16	2.50	No	(0.01)	2.50	No
Receptor_109	4	5	5	0.33	2.50	No	0.11	2.50	No
Receptor_110	4	4	4	0.18	2.50	No	0.16	2.50	No
Receptor_111	4	4	4	0.20	2.50	No	0.16	2.50	No
Receptor_112	4	4	4	0.08	2.50	No	0.20	2.50	No
Receptor_113	4	4	4	(0.14)	2.50	No	0.18	2.50	No
Receptor_114	5	4	4	(0.43)	2.50	No	0.04	2.50	No
Receptor_115	5	4	4	(0.52)	2.50	No	(0.16)	2.50	No
Receptor_116	4	4	4	(0.42)	2.50	No	(0.30)	2.50	No
Receptor_117	5	5	4	(0.26)	2.50	No	(0.44)	2.50	No
Receptor_118	5	5	5	(0.05)	2.50	No	(0.57)	2.50	No
Receptor_119	5	6	5	0.13	2.50	No	(0.67)	2.50	No
Receptor_120	6	7	6	0.15	2.50	No	(0.71)	2.50	No
Receptor_121	6	7	6	0.02	2.50	No	(0.64)	2.50	No
Receptor_122	6	6	6	(0.18)	2.50	No	(0.54)	2.50	No
Receptor_123	6	6	5	(0.32)	2.50	No	(0.82)	2.50	No
Receptor_124	6	6	5	(0.22)	2.50	No	(0.82)	2.50	No
Receptor_125	6	6	6	0.19	2.50	No	(0.44)	2.50	No
Receptor_126	6	6	6	0.33	2.50	No	(0.40)	2.50	No
Receptor_127	5	6	5	0.20	2.50	No	(0.39)	2.50	No
Receptor_128	5	5	5	0.04	2.50	No	(0.50)	2.50	No
Receptor_129	5	5	5	(0.09)	2.50	No	(0.61)	2.50	No
Receptor_130	4	5	4	(0.02)	2.50	No	(0.50)	2.50	No
Receptor_131	4	5	4	0.26	2.50	No	(0.23)	2.50	No
Receptor_132	4	4	4	0.35	2.50	No	(0.19)	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_133	4	4	4	0.42	2.50	No	(0.16)	2.50	No
Receptor_134	3	4	4	0.37	2.50	No	(0.14)	2.50	No
Receptor_135	3	4	4	0.32	2.50	No	(0.15)	2.50	No
Receptor_136	3	4	4	0.30	2.50	No	(0.16)	2.50	No
Receptor_137	3	4	3	0.29	2.50	No	(0.16)	2.50	No
Receptor_138	3	4	4	0.44	2.50	No	(0.13)	2.50	No
Receptor_139	3	4	4	0.38	2.50	No	(0.10)	2.50	No
Receptor_140	3	4	4	0.26	2.50	No	(0.03)	2.50	No
Receptor_141	4	4	4	0.15	2.50	No	0.07	2.50	No
Receptor_142	3	3	4	0.10	2.50	No	0.13	2.50	No
Receptor_143	4	3	4	0.02	2.50	No	0.26	2.50	No
Receptor_144	4	3	3	(0.03)	2.50	No	0.24	2.50	No
Receptor_145	4	3	3	(0.18)	2.50	No	0.08	2.50	No
Receptor_146	4	3	3	(0.16)	2.50	No	0.13	2.50	No
Receptor_147	3	3	3	(0.17)	2.50	No	0.13	2.50	No
Receptor_148	3	3	3	(0.23)	2.50	No	0.04	2.50	No
Receptor_149	4	3	3	(0.27)	2.50	No	(0.03)	2.50	No
Receptor_150	4	3	4	(0.29)	2.50	No	0.03	2.50	No
Receptor_151	4	4	4	(0.36)	2.50	No	0.01	2.50	No
Receptor_152	4	4	4	(0.43)	2.50	No	(0.07)	2.50	No
Receptor_153	4	4	4	(0.39)	2.50	No	(0.06)	2.50	No
Receptor_154	4	4	4	(0.57)	2.50	No	(0.05)	2.50	No
Receptor_155	4	4	4	(0.61)	2.50	No	(0.09)	2.50	No
Receptor_156	4	4	4	(0.62)	2.50	No	(0.10)	2.50	No
Receptor_157	4	4	4	(0.64)	2.50	No	(0.09)	2.50	No
Receptor_158	5	4	4	(0.72)	2.50	No	(0.14)	2.50	No
Receptor_159	5	4	4	(0.78)	2.50	No	(0.16)	2.50	No
Receptor_160	5	4	4	(0.81)	2.50	No	(0.15)	2.50	No
Receptor_161	5	4	4	(0.77)	2.50	No	(0.10)	2.50	No
Receptor_162	5	4	4	(0.69)	2.50	No	(0.01)	2.50	No
Receptor_163	5	4	5	(0.52)	2.50	No	0.22	2.50	No
Receptor_164	5	5	5	(0.49)	2.50	No	0.16	2.50	No
Receptor_165	6	5	5	(0.68)	2.50	No	0.05	2.50	No
Receptor_166	7	6	6	(0.88)	2.50	No	(0.02)	2.50	No
Receptor_167	7	6	6	(1.04)	2.50	No	0.02	2.50	No
Receptor_168	8	7	7	(1.24)	2.50	No	(0.07)	2.50	No
Receptor_169	9	7	7	(1.41)	2.50	No	(0.10)	2.50	No
Receptor_170	8	7	7	(1.36)	2.50	No	(0.11)	2.50	No
Receptor_171	8	7	7	(0.94)	2.50	No	(0.03)	2.50	No
Receptor_172	7	7	7	(0.59)	2.50	No	(0.02)	2.50	No
Receptor_173	9	8	8	(0.70)	2.50	No	(0.07)	2.50	No
Receptor_174	8	8	7	(0.97)	2.50	No	(0.11)	2.50	No
Receptor_175	9	7	7	(1.80)	2.50	No	(0.27)	2.50	No
Receptor_176	9	7	7	(1.89)	2.50	No	(0.40)	2.50	No
Receptor_177	8	7	6	(1.77)	2.50	No	(0.44)	2.50	No
Receptor_178	7	6	6	(1.49)	2.50	No	(0.41)	2.50	No
Receptor_179	6	6	5	(1.14)	2.50	No	(0.46)	2.50	No
Receptor_180	6	5	5	(0.53)	2.50	No	(0.04)	2.50	No
Receptor_181	5	5	5	(0.39)	2.50	No	0.17	2.50	No
Receptor_182	5	5	5	(0.35)	2.50	No	0.14	2.50	No
Receptor_183	5	4	4	(0.28)	2.50	No	0.16	2.50	No
Receptor_184	5	4	4	(0.29)	2.50	No	0.19	2.50	No
Receptor_185	4	4	4	(0.13)	2.50	No	0.16	2.50	No
Receptor_186	4	5	4	(0.00)	2.50	No	(0.34)	2.50	No
Receptor_187	4	4	4	0.24	2.50	No	0.18	2.50	No
Receptor_188	4	4	4	0.34	2.50	No	0.04	2.50	No
Receptor_189	4	4	4	0.25	2.50	No	(0.02)	2.50	No
Receptor_190	4	4	4	0.15	2.50	No	0.05	2.50	No
Receptor_191	4	4	4	0.16	2.50	No	0.04	2.50	No
Receptor_192	4	4	4	0.18	2.50	No	0.05	2.50	No
Receptor_193	3	4	4	0.18	2.50	No	0.09	2.50	No
Receptor_194	3	3	3	0.16	2.50	No	0.12	2.50	No
Receptor_195	3	3	3	(0.02)	2.50	No	0.16	2.50	No
Receptor_196	3	3	3	(0.15)	2.50	No	0.09	2.50	No
Receptor_197	3	3	3	(0.24)	2.50	No	(0.02)	2.50	No
Receptor_198	3	3	3	(0.25)	2.50	No	(0.05)	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_199	3	3	3	(0.25)	2.50	No	(0.06)	2.50	No
Receptor_200	3	3	3	(0.25)	2.50	No	(0.06)	2.50	No
Receptor_201	3	3	3	(0.24)	2.50	No	(0.05)	2.50	No
Receptor_202	3	3	3	(0.22)	2.50	No	(0.04)	2.50	No
Receptor_203	3	3	3	(0.21)	2.50	No	(0.04)	2.50	No
Receptor_204	3	3	3	(0.20)	2.50	No	(0.04)	2.50	No
Receptor_205	3	3	3	(0.15)	2.50	No	0.00	2.50	No
Receptor_206	3	3	3	(0.09)	2.50	No	0.06	2.50	No
Receptor_207	3	2	3	(0.03)	2.50	No	0.12	2.50	No
Receptor_208	2	2	2	0.00	2.50	No	0.14	2.50	No
Receptor_209	2	2	2	0.04	2.50	No	0.12	2.50	No
Receptor_210	2	2	3	0.09	2.50	No	0.10	2.50	No
Receptor_211	3	2	3	0.06	2.50	No	0.08	2.50	No
Receptor_212	3	3	3	0.03	2.50	No	0.08	2.50	No
Receptor_213	3	3	3	0.00	2.50	No	0.07	2.50	No
Receptor_214	3	3	3	(0.02)	2.50	No	0.08	2.50	No
Receptor_215	3	2	3	(0.03)	2.50	No	0.08	2.50	No
Receptor_216	3	2	3	(0.07)	2.50	No	0.09	2.50	No
Receptor_217	3	3	3	(0.05)	2.50	No	0.08	2.50	No
Receptor_218	3	3	3	(0.05)	2.50	No	0.08	2.50	No
Receptor_219	3	3	3	(0.06)	2.50	No	0.08	2.50	No
Receptor_220	3	3	3	(0.06)	2.50	No	0.09	2.50	No
Receptor_221	3	3	3	(0.05)	2.50	No	0.12	2.50	No
Receptor_222	4	4	4	(0.02)	2.50	No	0.17	2.50	No
Receptor_223	4	4	4	0.03	2.50	No	0.20	2.50	No
Receptor_224	4	4	4	0.07	2.50	No	0.18	2.50	No
Receptor_225	4	4	4	0.11	2.50	No	0.11	2.50	No
Receptor_226	4	4	4	0.13	2.50	No	0.06	2.50	No
Receptor_227	4	4	4	0.09	2.50	No	0.17	2.50	No
Receptor_228	4	4	4	0.05	2.50	No	0.25	2.50	No
Receptor_229	5	4	5	(0.01)	2.50	No	0.28	2.50	No
Receptor_230	5	4	5	(0.07)	2.50	No	0.23	2.50	No
Receptor_231	5	4	5	(0.11)	2.50	No	0.16	2.50	No
Receptor_232	5	5	5	(0.17)	2.50	No	0.09	2.50	No
Receptor_233	5	5	5	(0.25)	2.50	No	0.00	2.50	No
Receptor_234	6	6	6	(0.33)	2.50	No	(0.12)	2.50	No
Receptor_235	7	6	6	(0.34)	2.50	No	0.03	2.50	No
Receptor_236	8	7	7	(0.49)	2.50	No	(0.28)	2.50	No
Receptor_237	6	6	6	(0.51)	2.50	No	(0.54)	2.50	No
Receptor_238	6	6	5	(0.45)	2.50	No	(0.43)	2.50	No
Receptor_239	5	5	5	(0.39)	2.50	No	(0.17)	2.50	No
Receptor_240	6	6	5	(0.43)	2.50	No	(0.18)	2.50	No
Receptor_241	5	5	5	(0.32)	2.50	No	(0.21)	2.50	No
Receptor_242	4	4	4	(0.23)	2.50	No	(0.20)	2.50	No
Receptor_243	4	4	4	(0.17)	2.50	No	(0.19)	2.50	No
Receptor_244	4	4	4	(0.12)	2.50	No	(0.17)	2.50	No
Receptor_245	3	3	3	(0.08)	2.50	No	(0.16)	2.50	No
Receptor_246	3	3	3	(0.08)	2.50	No	(0.06)	2.50	No
Receptor_247	3	3	3	(0.07)	2.50	No	0.13	2.50	No
Receptor_248	3	3	3	(0.05)	2.50	No	0.20	2.50	No
Receptor_249	3	3	3	(0.03)	2.50	No	0.12	2.50	No
Receptor_250	2	2	2	(0.10)	2.50	No	(0.11)	2.50	No
Receptor_251	2	2	2	(0.07)	2.50	No	(0.08)	2.50	No
Receptor_252	2	2	2	(0.00)	2.50	No	(0.00)	2.50	No
Receptor_253	2	2	2	0.00	2.50	No	0.02	2.50	No
Receptor_254	2	2	2	0.02	2.50	No	0.04	2.50	No
Receptor_255	2	2	2	0.04	2.50	No	0.09	2.50	No
Receptor_256	2	2	2	(0.09)	2.50	No	(0.05)	2.50	No
Receptor_257	3	3	2	(0.18)	2.50	No	(0.15)	2.50	No
Receptor_258	3	3	3	(0.08)	2.50	No	(0.02)	2.50	No
Receptor_259	3	2	2	(0.03)	2.50	No	0.03	2.50	No
Receptor_260	2	2	2	0.08	2.50	No	0.15	2.50	No
Receptor_261	2	2	2	0.11	2.50	No	0.15	2.50	No
Receptor_262	2	2	3	0.15	2.50	No	0.16	2.50	No
Receptor_263	2	2	2	0.15	2.50	No	0.20	2.50	No
Receptor_264	2	2	2	(0.08)	2.50	No	(0.07)	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_265	2	2	2	(0.14)	2.50	No	(0.15)	2.50	No
Receptor_266	2	2	2	(0.10)	2.50	No	(0.17)	2.50	No
Receptor_267	2	2	2	(0.14)	2.50	No	(0.23)	2.50	No
Receptor_268	2	2	2	(0.16)	2.50	No	(0.29)	2.50	No
Receptor_269	2	3	2	(0.16)	2.50	No	(0.29)	2.50	No
Receptor_270	3	3	3	(0.16)	2.50	No	(0.13)	2.50	No
Receptor_271	3	3	3	(0.07)	2.50	No	0.13	2.50	No
Receptor_272	3	3	4	1.08	2.50	No	0.82	2.50	No
Receptor_273	3	3	3	0.79	2.50	No	0.60	2.50	No
Receptor_274	3	3	3	(0.17)	2.50	No	(0.08)	2.50	No
Receptor_275	3	3	3	(0.17)	2.50	No	(0.04)	2.50	No
Receptor_276	3	3	3	(0.21)	2.50	No	(0.12)	2.50	No
Receptor_277	4	3	3	(0.29)	2.50	No	(0.24)	2.50	No
Receptor_278	4	4	3	(0.40)	2.50	No	(0.35)	2.50	No
Receptor_279	4	4	3	(0.48)	2.50	No	(0.43)	2.50	No
Receptor_280	4	4	3	(0.53)	2.50	No	(0.48)	2.50	No
Receptor_281	4	4	4	(0.55)	2.50	No	(0.47)	2.50	No
Receptor_282	4	4	4	(0.51)	2.50	No	(0.40)	2.50	No
Receptor_283	4	4	4	(0.38)	2.50	No	(0.26)	2.50	No
Receptor_284	4	4	4	(0.12)	2.50	No	(0.07)	2.50	No
Receptor_285	5	5	5	0.12	2.50	No	0.15	2.50	No
Receptor_286	5	5	5	(0.20)	2.50	No	0.05	2.50	No
Receptor_287	5	5	5	(0.34)	2.50	No	0.02	2.50	No
Receptor_288	6	5	5	(0.41)	2.50	No	(0.04)	2.50	No
Receptor_289	6	5	5	(0.35)	2.50	No	0.11	2.50	No
Receptor_290	5	5	6	0.19	2.50	No	0.45	2.50	No
Receptor_291	5	5	6	0.98	2.50	No	0.77	2.50	No
Receptor_292	5	4	5	0.39	2.50	No	0.85	2.50	No
Receptor_293	5	4	5	(0.15)	2.50	No	0.94	2.50	No
Receptor_294	7	5	5	(1.28)	2.50	No	0.51	2.50	No
Receptor_295	7	5	6	(1.44)	2.50	No	0.61	2.50	No
Receptor_296	7	5	6	(0.86)	2.50	No	1.00	2.50	No
Receptor_297	7	5	7	(0.29)	2.50	No	1.28	2.50	No
Receptor_298	7	6	6	(1.00)	2.50	No	0.53	2.50	No
Receptor_299	7	5	6	(1.13)	2.50	No	0.39	2.50	No
Receptor_300	7	5	5	(1.33)	2.50	No	0.12	2.50	No
Receptor_301	7	5	5	(1.48)	2.50	No	(0.13)	2.50	No
Receptor_302	7	6	5	(1.25)	2.50	No	(0.10)	2.50	No
Receptor_303	7	6	6	(0.99)	2.50	No	(0.19)	2.50	No
Receptor_304	7	6	6	(0.76)	2.50	No	(0.49)	2.50	No
Receptor_305	6	6	6	(0.60)	2.50	No	(0.35)	2.50	No
Receptor_306	6	6	6	(0.44)	2.50	No	(0.35)	2.50	No
Receptor_307	6	6	6	(0.16)	2.50	No	(0.35)	2.50	No
Receptor_308	5	6	5	(0.01)	2.50	No	(0.28)	2.50	No
Receptor_309	5	6	5	(0.14)	2.50	No	(0.39)	2.50	No
Receptor_310	5	5	5	0.08	2.50	No	0.21	2.50	No
Receptor_311	5	5	5	0.38	2.50	No	0.49	2.50	No
Receptor_312	5	5	6	0.63	2.50	No	0.65	2.50	No
Receptor_313	5	5	5	0.55	2.50	No	0.51	2.50	No
Receptor_314	5	5	5	0.41	2.50	No	0.43	2.50	No
Receptor_315	5	5	5	0.27	2.50	No	0.39	2.50	No
Receptor_316	5	4	5	0.21	2.50	No	0.40	2.50	No
Receptor_317	4	4	5	0.17	2.50	No	0.40	2.50	No
Receptor_318	4	4	4	0.14	2.50	No	0.39	2.50	No
Receptor_319	4	4	4	0.11	2.50	No	0.38	2.50	No
Receptor_320	4	4	4	0.13	2.50	No	0.42	2.50	No
Receptor_321	4	4	4	0.17	2.50	No	0.48	2.50	No
Receptor_322	4	3	4	0.25	2.50	No	0.57	2.50	No
Receptor_323	4	3	4	0.31	2.50	No	0.60	2.50	No
Receptor_324	3	3	4	0.36	2.50	No	0.55	2.50	No
Receptor_325	3	3	4	0.40	2.50	No	0.49	2.50	No
Receptor_326	3	3	4	0.42	2.50	No	0.43	2.50	No
Receptor_327	12	10	9	(3.06)	2.50	No	(1.32)	2.50	No
Maximum	12	10	9	1.08	2.50	No	1.28	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_1	1	1	1	0.099	1.00	No	0.11	1.00	No
Receptor_2	1	1	1	0.109	1.00	No	0.11	1.00	No
Receptor_3	1	1	1	0.116	1.00	No	0.11	1.00	No
Receptor_4	1	1	1	0.121	1.00	No	0.11	1.00	No
Receptor_5	1	1	1	0.123	1.00	No	0.10	1.00	No
Receptor_6	1	1	1	0.123	1.00	No	0.09	1.00	No
Receptor_7	1	1	1	0.121	1.00	No	0.08	1.00	No
Receptor_8	1	1	1	0.118	1.00	No	0.07	1.00	No
Receptor_9	0	1	1	0.115	1.00	No	0.06	1.00	No
Receptor_10	0	1	1	0.110	1.00	No	0.05	1.00	No
Receptor_11	0	1	1	0.104	1.00	No	0.04	1.00	No
Receptor_12	0	0	1	0.098	1.00	No	0.03	1.00	No
Receptor_13	0	0	1	0.090	1.00	No	0.03	1.00	No
Receptor_14	0	0	0	0.081	1.00	No	0.02	1.00	No
Receptor_15	0	0	0	0.071	1.00	No	0.02	1.00	No
Receptor_16	0	0	0	0.062	1.00	No	0.02	1.00	No
Receptor_17	0	0	0	0.054	1.00	No	0.02	1.00	No
Receptor_18	0	0	0	0.046	1.00	No	0.02	1.00	No
Receptor_19	0	0	0	0.040	1.00	No	0.02	1.00	No
Receptor_20	0	0	0	0.035	1.00	No	0.02	1.00	No
Receptor_21	0	0	0	0.031	1.00	No	0.01	1.00	No
Receptor_22	0	0	0	0.027	1.00	No	0.01	1.00	No
Receptor_23	0	0	0	0.025	1.00	No	0.01	1.00	No
Receptor_24	0	0	0	0.023	1.00	No	0.01	1.00	No
Receptor_25	0	0	0	0.021	1.00	No	0.01	1.00	No
Receptor_26	0	0	0	0.020	1.00	No	0.01	1.00	No
Receptor_27	0	0	0	0.019	1.00	No	0.01	1.00	No
Receptor_28	0	0	0	0.017	1.00	No	0.01	1.00	No
Receptor_29	0	0	0	0.018	1.00	No	0.01	1.00	No
Receptor_30	0	0	0	0.019	1.00	No	0.01	1.00	No
Receptor_31	0	0	0	0.021	1.00	No	0.01	1.00	No
Receptor_32	0	0	0	0.020	1.00	No	0.01	1.00	No
Receptor_33	0	0	0	0.021	1.00	No	0.01	1.00	No
Receptor_34	0	0	0	0.022	1.00	No	0.01	1.00	No
Receptor_35	0	0	0	0.023	1.00	No	0.01	1.00	No
Receptor_36	0	0	0	0.024	1.00	No	0.01	1.00	No
Receptor_37	0	0	0	0.025	1.00	No	0.01	1.00	No
Receptor_38	0	0	0	0.026	1.00	No	0.01	1.00	No
Receptor_39	0	0	0	0.027	1.00	No	0.01	1.00	No
Receptor_40	0	0	0	0.030	1.00	No	0.01	1.00	No
Receptor_41	0	0	0	0.032	1.00	No	0.01	1.00	No
Receptor_42	0	0	0	0.034	1.00	No	0.01	1.00	No
Receptor_43	0	0	0	0.033	1.00	No	0.01	1.00	No
Receptor_44	0	0	0	0.034	1.00	No	0.01	1.00	No
Receptor_45	0	0	0	0.035	1.00	No	0.01	1.00	No
Receptor_46	0	0	0	0.039	1.00	No	0.01	1.00	No
Receptor_47	0	0	0	0.043	1.00	No	0.02	1.00	No
Receptor_48	0	0	0	0.044	1.00	No	0.02	1.00	No
Receptor_49	0	0	0	0.047	1.00	No	0.02	1.00	No
Receptor_50	0	0	0	0.050	1.00	No	0.02	1.00	No
Receptor_51	0	0	0	0.048	1.00	No	0.02	1.00	No
Receptor_52	0	0	0	0.046	1.00	No	0.02	1.00	No
Receptor_53	0	0	0	0.043	1.00	No	0.02	1.00	No
Receptor_54	0	0	0	0.040	1.00	No	0.01	1.00	No
Receptor_55	0	0	0	0.037	1.00	No	0.01	1.00	No
Receptor_56	0	0	0	0.037	1.00	No	0.01	1.00	No
Receptor_57	0	0	0	0.040	1.00	No	0.02	1.00	No
Receptor_58	0	0	0	0.044	1.00	No	0.02	1.00	No
Receptor_59	0	0	0	0.046	1.00	No	0.02	1.00	No
Receptor_60	0	0	0	0.050	1.00	No	0.02	1.00	No
Receptor_61	0	0	0	0.056	1.00	No	0.02	1.00	No
Receptor_62	0	0	0	0.063	1.00	No	0.02	1.00	No
Receptor_63	0	0	0	0.070	1.00	No	0.03	1.00	No
Receptor_64	0	0	0	0.078	1.00	No	0.03	1.00	No
Receptor_65	0	0	0	0.084	1.00	No	0.04	1.00	No
Receptor_66	0	0	0	0.090	1.00	No	0.04	1.00	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_67	0	0	1	0.096	1.00	No	0.04	1.00	No
Receptor_68	0	1	1	0.103	1.00	No	0.04	1.00	No
Receptor_69	1	1	1	0.116	1.00	No	0.05	1.00	No
Receptor_70	1	1	1	0.117	1.00	No	0.05	1.00	No
Receptor_71	1	1	1	0.118	1.00	No	0.05	1.00	No
Receptor_72	1	1	1	0.117	1.00	No	0.05	1.00	No
Receptor_73	1	1	1	0.116	1.00	No	0.05	1.00	No
Receptor_74	1	1	1	0.114	1.00	No	0.05	1.00	No
Receptor_75	1	1	1	0.110	1.00	No	0.05	1.00	No
Receptor_76	1	1	1	0.127	1.00	No	0.06	1.00	No
Receptor_77	1	1	1	0.123	1.00	No	0.05	1.00	No
Receptor_78	1	1	1	0.118	1.00	No	0.05	1.00	No
Receptor_79	1	1	1	0.132	1.00	No	0.05	1.00	No
Receptor_80	1	1	1	0.148	1.00	No	0.06	1.00	No
Receptor_81	1	1	1	0.166	1.00	No	0.05	1.00	No
Receptor_82	1	1	1	0.151	1.00	No	0.04	1.00	No
Receptor_83	1	1	1	0.138	1.00	No	0.03	1.00	No
Receptor_84	1	1	1	0.125	1.00	No	0.04	1.00	No
Receptor_85	1	1	1	0.112	1.00	No	0.04	1.00	No
Receptor_86	1	1	1	0.101	1.00	No	0.04	1.00	No
Receptor_87	1	1	1	0.095	1.00	No	0.03	1.00	No
Receptor_88	1	1	1	0.089	1.00	No	0.03	1.00	No
Receptor_89	1	1	1	0.084	1.00	No	0.02	1.00	No
Receptor_90	1	1	1	0.075	1.00	No	0.02	1.00	No
Receptor_91	1	1	1	0.068	1.00	No	0.02	1.00	No
Receptor_92	0	1	1	0.061	1.00	No	0.02	1.00	No
Receptor_93	0	1	1	0.062	1.00	No	0.02	1.00	No
Receptor_94	1	1	1	0.061	1.00	No	0.01	1.00	No
Receptor_95	1	1	1	0.060	1.00	No	0.01	1.00	No
Receptor_96	1	1	1	0.059	1.00	No	0.01	1.00	No
Receptor_97	1	1	1	0.058	1.00	No	0.00	1.00	No
Receptor_98	1	1	1	0.065	1.00	No	0.00	1.00	No
Receptor_99	1	1	1	0.074	1.00	No	(0.00)	1.00	No
Receptor_100	1	1	1	0.085	1.00	No	(0.00)	1.00	No
Receptor_101	1	1	1	0.084	1.00	No	(0.01)	1.00	No
Receptor_102	1	1	1	0.083	1.00	No	(0.01)	1.00	No
Receptor_103	1	1	1	0.082	1.00	No	(0.00)	1.00	No
Receptor_104	1	1	1	0.079	1.00	No	(0.00)	1.00	No
Receptor_105	1	1	1	0.076	1.00	No	0.00	1.00	No
Receptor_106	1	1	1	0.085	1.00	No	0.00	1.00	No
Receptor_107	1	1	1	0.094	1.00	No	0.00	1.00	No
Receptor_108	1	1	1	0.090	1.00	No	0.01	1.00	No
Receptor_109	1	1	1	0.081	1.00	No	0.01	1.00	No
Receptor_110	1	1	1	0.073	1.00	No	0.01	1.00	No
Receptor_111	1	1	1	0.066	1.00	No	0.01	1.00	No
Receptor_112	1	1	1	0.063	1.00	No	0.01	1.00	No
Receptor_113	1	1	1	0.059	1.00	No	0.02	1.00	No
Receptor_114	1	1	1	0.055	1.00	No	0.02	1.00	No
Receptor_115	1	1	1	0.052	1.00	No	0.02	1.00	No
Receptor_116	1	1	1	0.050	1.00	No	0.01	1.00	No
Receptor_117	1	1	1	0.056	1.00	No	0.01	1.00	No
Receptor_118	1	1	2	0.061	1.00	No	0.01	1.00	No
Receptor_119	2	2	2	0.067	1.00	No	(0.00)	1.00	No
Receptor_120	2	2	2	0.070	1.00	No	(0.01)	1.00	No
Receptor_121	2	2	2	0.066	1.00	No	(0.02)	1.00	No
Receptor_122	2	2	2	0.054	1.00	No	(0.02)	1.00	No
Receptor_123	2	2	2	0.043	1.00	No	(0.02)	1.00	No
Receptor_124	2	2	2	0.030	1.00	No	(0.02)	1.00	No
Receptor_125	2	2	2	(0.019)	1.00	No	(0.03)	1.00	No
Receptor_126	2	2	2	(0.037)	1.00	No	(0.03)	1.00	No
Receptor_127	2	2	2	(0.001)	1.00	No	(0.02)	1.00	No
Receptor_128	2	2	2	0.018	1.00	No	(0.01)	1.00	No
Receptor_129	2	2	2	0.035	1.00	No	(0.01)	1.00	No
Receptor_130	2	2	2	0.025	1.00	No	(0.01)	1.00	No
Receptor_131	2	2	2	0.015	1.00	No	(0.01)	1.00	No
Receptor_132	1	1	1	0.016	1.00	No	(0.00)	1.00	No

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	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_133	1	1	1	0.017	1.00	No	(0.00)	1.00	No
Receptor_134	1	1	1	0.017	1.00	No	0.00	1.00	No
Receptor_135	1	1	1	0.018	1.00	No	0.00	1.00	No
Receptor_136	1	1	1	0.018	1.00	No	0.00	1.00	No
Receptor_137	1	1	1	0.018	1.00	No	0.01	1.00	No
Receptor_138	1	1	1	0.006	1.00	No	0.00	1.00	No
Receptor_139	1	1	1	(0.009)	1.00	No	0.00	1.00	No
Receptor_140	1	1	1	(0.018)	1.00	No	0.00	1.00	No
Receptor_141	1	1	1	(0.032)	1.00	No	0.00	1.00	No
Receptor_142	1	1	1	(0.036)	1.00	No	0.00	1.00	No
Receptor_143	1	1	1	(0.052)	1.00	No	0.00	1.00	No
Receptor_144	1	1	1	(0.069)	1.00	No	0.00	1.00	No
Receptor_145	1	1	1	(0.083)	1.00	No	0.00	1.00	No
Receptor_146	1	1	1	(0.079)	1.00	No	0.00	1.00	No
Receptor_147	1	1	1	(0.075)	1.00	No	0.00	1.00	No
Receptor_148	1	1	1	(0.074)	1.00	No	0.00	1.00	No
Receptor_149	1	1	1	(0.080)	1.00	No	0.00	1.00	No
Receptor_150	1	1	1	(0.085)	1.00	No	0.00	1.00	No
Receptor_151	1	1	1	(0.087)	1.00	No	0.01	1.00	No
Receptor_152	1	1	1	(0.087)	1.00	No	0.01	1.00	No
Receptor_153	1	1	1	(0.084)	1.00	No	0.02	1.00	No
Receptor_154	1	1	1	(0.099)	1.00	No	0.02	1.00	No
Receptor_155	1	1	1	(0.101)	1.00	No	0.01	1.00	No
Receptor_156	1	1	1	(0.101)	1.00	No	0.01	1.00	No
Receptor_157	1	1	1	(0.114)	1.00	No	0.00	1.00	No
Receptor_158	2	1	1	(0.116)	1.00	No	0.01	1.00	No
Receptor_159	2	1	1	(0.129)	1.00	No	0.00	1.00	No
Receptor_160	2	2	2	(0.141)	1.00	No	0.00	1.00	No
Receptor_161	2	2	2	(0.154)	1.00	No	(0.00)	1.00	No
Receptor_162	2	2	2	(0.171)	1.00	No	(0.00)	1.00	No
Receptor_163	2	2	2	(0.189)	1.00	No	(0.01)	1.00	No
Receptor_164	2	2	2	(0.211)	1.00	No	(0.01)	1.00	No
Receptor_165	2	2	2	(0.240)	1.00	No	(0.01)	1.00	No
Receptor_166	2	2	2	(0.279)	1.00	No	(0.01)	1.00	No
Receptor_167	3	2	2	(0.336)	1.00	No	(0.01)	1.00	No
Receptor_168	3	3	3	(0.423)	1.00	No	(0.02)	1.00	No
Receptor_169	3	3	3	(0.497)	1.00	No	(0.01)	1.00	No
Receptor_170	3	3	3	(0.499)	1.00	No	(0.02)	1.00	No
Receptor_171	3	3	3	(0.451)	1.00	No	(0.04)	1.00	No
Receptor_172	3	3	3	(0.429)	1.00	No	(0.06)	1.00	No
Receptor_173	3	3	3	(0.482)	1.00	No	(0.09)	1.00	No
Receptor_174	3	3	3	(0.457)	1.00	No	(0.08)	1.00	No
Receptor_175	3	3	3	(0.411)	1.00	No	(0.06)	1.00	No
Receptor_176	3	3	3	(0.357)	1.00	No	(0.04)	1.00	No
Receptor_177	3	2	2	(0.298)	1.00	No	(0.00)	1.00	No
Receptor_178	3	2	2	(0.241)	1.00	No	0.03	1.00	No
Receptor_179	2	2	2	(0.190)	1.00	No	0.05	1.00	No
Receptor_180	2	2	2	(0.147)	1.00	No	0.07	1.00	No
Receptor_181	2	2	2	(0.114)	1.00	No	0.08	1.00	No
Receptor_182	2	2	2	(0.092)	1.00	No	0.08	1.00	No
Receptor_183	2	2	2	(0.080)	1.00	No	0.07	1.00	No
Receptor_184	2	2	2	(0.074)	1.00	No	0.06	1.00	No
Receptor_185	2	1	1	(0.071)	1.00	No	0.05	1.00	No
Receptor_186	1	1	1	(0.067)	1.00	No	0.04	1.00	No
Receptor_187	1	1	1	(0.065)	1.00	No	0.03	1.00	No
Receptor_188	1	1	1	(0.067)	1.00	No	0.02	1.00	No
Receptor_189	1	1	1	(0.066)	1.00	No	0.02	1.00	No
Receptor_190	1	1	1	(0.061)	1.00	No	0.01	1.00	No
Receptor_191	1	1	1	(0.056)	1.00	No	0.02	1.00	No
Receptor_192	1	1	1	(0.053)	1.00	No	0.02	1.00	No
Receptor_193	1	1	1	(0.051)	1.00	No	0.02	1.00	No
Receptor_194	1	1	1	(0.050)	1.00	No	0.02	1.00	No
Receptor_195	1	1	1	(0.050)	1.00	No	0.02	1.00	No
Receptor_196	1	1	1	(0.049)	1.00	No	0.02	1.00	No
Receptor_197	1	1	1	(0.048)	1.00	No	0.02	1.00	No
Receptor_198	1	1	1	(0.047)	1.00	No	0.02	1.00	No

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	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_199	1	1	1	(0.046)	1.00	No	0.01	1.00	No
Receptor_200	1	1	1	(0.045)	1.00	No	0.01	1.00	No
Receptor_201	1	1	1	(0.044)	1.00	No	0.01	1.00	No
Receptor_202	1	1	1	(0.042)	1.00	No	0.01	1.00	No
Receptor_203	1	1	1	(0.038)	1.00	No	0.01	1.00	No
Receptor_204	1	1	1	(0.034)	1.00	No	0.01	1.00	No
Receptor_205	1	1	1	(0.031)	1.00	No	0.01	1.00	No
Receptor_206	1	1	1	(0.029)	1.00	No	0.01	1.00	No
Receptor_207	1	1	1	(0.026)	1.00	No	0.01	1.00	No
Receptor_208	1	1	1	(0.024)	1.00	No	0.01	1.00	No
Receptor_209	1	1	1	(0.023)	1.00	No	0.01	1.00	No
Receptor_210	1	1	1	(0.024)	1.00	No	0.01	1.00	No
Receptor_211	1	1	1	(0.024)	1.00	No	0.01	1.00	No
Receptor_212	1	1	1	(0.024)	1.00	No	0.01	1.00	No
Receptor_213	1	1	1	(0.025)	1.00	No	0.01	1.00	No
Receptor_214	1	1	1	(0.025)	1.00	No	0.01	1.00	No
Receptor_215	1	1	1	(0.026)	1.00	No	0.01	1.00	No
Receptor_216	1	1	1	(0.027)	1.00	No	0.01	1.00	No
Receptor_217	1	1	1	(0.030)	1.00	No	0.01	1.00	No
Receptor_218	1	1	1	(0.032)	1.00	No	0.01	1.00	No
Receptor_219	1	1	1	(0.035)	1.00	No	0.01	1.00	No
Receptor_220	1	1	1	(0.038)	1.00	No	0.01	1.00	No
Receptor_221	1	1	1	(0.041)	1.00	No	0.01	1.00	No
Receptor_222	1	1	1	(0.044)	1.00	No	0.01	1.00	No
Receptor_223	1	1	1	(0.048)	1.00	No	0.01	1.00	No
Receptor_224	1	1	1	(0.052)	1.00	No	0.01	1.00	No
Receptor_225	1	1	1	(0.057)	1.00	No	0.01	1.00	No
Receptor_226	1	1	1	(0.054)	1.00	No	0.01	1.00	No
Receptor_227	1	1	1	(0.064)	1.00	No	0.00	1.00	No
Receptor_228	1	1	1	(0.069)	1.00	No	(0.00)	1.00	No
Receptor_229	1	1	1	(0.074)	1.00	No	(0.01)	1.00	No
Receptor_230	1	1	1	(0.067)	1.00	No	(0.01)	1.00	No
Receptor_231	1	1	1	(0.063)	1.00	No	(0.01)	1.00	No
Receptor_232	2	1	1	(0.068)	1.00	No	(0.01)	1.00	No
Receptor_233	2	2	2	(0.075)	1.00	No	(0.02)	1.00	No
Receptor_234	2	2	2	(0.082)	1.00	No	(0.03)	1.00	No
Receptor_235	2	2	2	(0.096)	1.00	No	(0.04)	1.00	No
Receptor_236	3	2	2	(0.094)	1.00	No	(0.05)	1.00	No
Receptor_237	2	2	2	(0.074)	1.00	No	(0.03)	1.00	No
Receptor_238	2	2	1	(0.060)	1.00	No	(0.01)	1.00	No
Receptor_239	1	1	1	(0.051)	1.00	No	(0.01)	1.00	No
Receptor_240	1	1	1	(0.046)	1.00	No	(0.00)	1.00	No
Receptor_241	1	1	1	(0.039)	1.00	No	0.00	1.00	No
Receptor_242	1	1	1	(0.034)	1.00	No	0.01	1.00	No
Receptor_243	1	1	1	(0.029)	1.00	No	0.01	1.00	No
Receptor_244	1	1	1	(0.026)	1.00	No	0.01	1.00	No
Receptor_245	1	1	1	(0.022)	1.00	No	0.01	1.00	No
Receptor_246	0	0	0	(0.020)	1.00	No	0.01	1.00	No
Receptor_247	0	0	0	(0.019)	1.00	No	0.01	1.00	No
Receptor_248	0	0	0	(0.018)	1.00	No	0.01	1.00	No
Receptor_249	0	0	0	(0.016)	1.00	No	0.01	1.00	No
Receptor_250	0	0	0	(0.014)	1.00	No	0.01	1.00	No
Receptor_251	0	0	0	(0.012)	1.00	No	0.01	1.00	No
Receptor_252	0	0	0	(0.010)	1.00	No	0.01	1.00	No
Receptor_253	0	0	0	(0.011)	1.00	No	0.01	1.00	No
Receptor_254	0	0	0	(0.012)	1.00	No	0.01	1.00	No
Receptor_255	0	0	0	(0.013)	1.00	No	0.01	1.00	No
Receptor_256	0	0	0	(0.017)	1.00	No	0.01	1.00	No
Receptor_257	0	0	0	(0.021)	1.00	No	0.01	1.00	No
Receptor_258	0	0	0	(0.024)	1.00	No	0.01	1.00	No
Receptor_259	0	0	0	(0.019)	1.00	No	0.01	1.00	No
Receptor_260	0	0	0	(0.014)	1.00	No	0.01	1.00	No
Receptor_261	0	0	0	(0.016)	1.00	No	0.02	1.00	No
Receptor_262	0	0	0	(0.018)	1.00	No	0.02	1.00	No
Receptor_263	0	0	0	(0.012)	1.00	No	0.02	1.00	No
Receptor_264	0	0	0	(0.009)	1.00	No	0.01	1.00	No

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	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_265	0	0	0	(0.008)	1.00	No	0.01	1.00	No
Receptor_266	0	0	0	(0.007)	1.00	No	0.01	1.00	No
Receptor_267	0	0	0	(0.007)	1.00	No	0.01	1.00	No
Receptor_268	0	0	0	(0.007)	1.00	No	0.02	1.00	No
Receptor_269	0	0	0	(0.006)	1.00	No	0.02	1.00	No
Receptor_270	0	0	0	(0.002)	1.00	No	0.02	1.00	No
Receptor_271	0	0	0	0.005	1.00	No	0.03	1.00	No
Receptor_272	0	0	0	0.015	1.00	No	0.03	1.00	No
Receptor_273	0	0	0	0.033	1.00	No	0.04	1.00	No
Receptor_274	1	1	1	0.050	1.00	No	0.06	1.00	No
Receptor_275	1	1	1	0.055	1.00	No	0.06	1.00	No
Receptor_276	1	1	1	0.044	1.00	No	0.06	1.00	No
Receptor_277	1	1	1	0.024	1.00	No	0.06	1.00	No
Receptor_278	1	1	1	0.002	1.00	No	0.05	1.00	No
Receptor_279	1	1	1	(0.021)	1.00	No	0.05	1.00	No
Receptor_280	1	1	1	(0.042)	1.00	No	0.05	1.00	No
Receptor_281	1	1	1	(0.060)	1.00	No	0.06	1.00	No
Receptor_282	1	1	1	(0.073)	1.00	No	0.06	1.00	No
Receptor_283	1	1	1	(0.080)	1.00	No	0.07	1.00	No
Receptor_284	1	1	1	(0.083)	1.00	No	0.07	1.00	No
Receptor_285	1	1	1	(0.089)	1.00	No	0.08	1.00	No
Receptor_286	1	1	1	(0.139)	1.00	No	0.11	1.00	No
Receptor_287	1	1	1	(0.125)	1.00	No	0.12	1.00	No
Receptor_288	1	1	1	(0.111)	1.00	No	0.15	1.00	No
Receptor_289	1	1	1	(0.108)	1.00	No	0.18	1.00	No
Receptor_290	1	1	1	(0.098)	1.00	No	0.15	1.00	No
Receptor_291	1	1	1	(0.085)	1.00	No	0.14	1.00	No
Receptor_292	1	1	1	(0.072)	1.00	No	0.11	1.00	No
Receptor_293	1	1	1	(0.075)	1.00	No	0.13	1.00	No
Receptor_294	1	1	1	(0.081)	1.00	No	0.15	1.00	No
Receptor_295	1	1	1	(0.088)	1.00	No	0.19	1.00	No
Receptor_296	1	1	1	(0.104)	1.00	No	0.25	1.00	No
Receptor_297	2	1	1	(0.121)	1.00	No	0.29	1.00	No
Receptor_298	2	1	2	(0.125)	1.00	No	0.32	1.00	No
Receptor_299	2	1	2	(0.107)	1.00	No	0.30	1.00	No
Receptor_300	1	1	1	(0.073)	1.00	No	0.26	1.00	No
Receptor_301	1	1	1	(0.043)	1.00	No	0.22	1.00	No
Receptor_302	1	1	1	(0.017)	1.00	No	0.21	1.00	No
Receptor_303	1	1	1	(0.002)	1.00	No	0.20	1.00	No
Receptor_304	1	1	1	0.008	1.00	No	0.20	1.00	No
Receptor_305	1	1	1	0.017	1.00	No	0.19	1.00	No
Receptor_306	1	1	1	0.028	1.00	No	0.20	1.00	No
Receptor_307	1	1	1	0.044	1.00	No	0.21	1.00	No
Receptor_308	1	1	1	0.057	1.00	No	0.21	1.00	No
Receptor_309	1	1	1	0.072	1.00	No	0.22	1.00	No
Receptor_310	1	1	1	0.088	1.00	No	0.23	1.00	No
Receptor_311	1	1	1	0.097	1.00	No	0.23	1.00	No
Receptor_312	1	1	1	0.098	1.00	No	0.22	1.00	No
Receptor_313	1	1	1	0.099	1.00	No	0.21	1.00	No
Receptor_314	1	1	1	0.100	1.00	No	0.20	1.00	No
Receptor_315	1	1	1	0.101	1.00	No	0.19	1.00	No
Receptor_316	1	1	1	0.102	1.00	No	0.18	1.00	No
Receptor_317	1	1	1	0.104	1.00	No	0.17	1.00	No
Receptor_318	1	1	1	0.102	1.00	No	0.16	1.00	No
Receptor_319	1	1	1	0.101	1.00	No	0.16	1.00	No
Receptor_320	1	1	1	0.100	1.00	No	0.15	1.00	No
Receptor_321	1	1	1	0.098	1.00	No	0.14	1.00	No
Receptor_322	1	1	1	0.101	1.00	No	0.14	1.00	No
Receptor_323	1	1	1	0.102	1.00	No	0.13	1.00	No
Receptor_324	1	1	1	0.103	1.00	No	0.13	1.00	No
Receptor_325	1	1	1	0.102	1.00	No	0.12	1.00	No
Receptor_326	1	1	1	0.101	1.00	No	0.11	1.00	No
Receptor_327	5	4	4	(0.773)	1.00	No	(0.11)	1.00	No
Maximum	5	4	4	0.166	1.00	No	0.32	1.00	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_1	3	3	3	0.37	2.50	No	0.38	2.50	No
Receptor_2	3	3	3	0.32	2.50	No	0.26	2.50	No
Receptor_3	3	3	3	0.39	2.50	No	0.23	2.50	No
Receptor_4	3	3	3	0.53	2.50	No	0.33	2.50	No
Receptor_5	3	3	4	0.57	2.50	No	0.41	2.50	No
Receptor_6	3	3	4	0.57	2.50	No	0.45	2.50	No
Receptor_7	3	3	4	0.50	2.50	No	0.43	2.50	No
Receptor_8	3	3	4	0.36	2.50	No	0.37	2.50	No
Receptor_9	3	3	4	0.20	2.50	No	0.28	2.50	No
Receptor_10	4	3	4	0.14	2.50	No	0.29	2.50	No
Receptor_11	4	3	4	0.16	2.50	No	0.35	2.50	No
Receptor_12	4	3	4	0.20	2.50	No	0.33	2.50	No
Receptor_13	4	4	4	0.24	2.50	No	0.29	2.50	No
Receptor_14	4	4	4	0.28	2.50	No	0.24	2.50	No
Receptor_15	4	4	4	0.31	2.50	No	0.20	2.50	No
Receptor_16	3	4	4	0.31	2.50	No	0.16	2.50	No
Receptor_17	3	3	4	0.28	2.50	No	0.15	2.50	No
Receptor_18	3	3	3	0.23	2.50	No	0.16	2.50	No
Receptor_19	3	3	3	0.17	2.50	No	0.17	2.50	No
Receptor_20	3	3	3	0.09	2.50	No	0.06	2.50	No
Receptor_21	2	2	2	0.03	2.50	No	(0.07)	2.50	No
Receptor_22	2	2	2	0.15	2.50	No	0.01	2.50	No
Receptor_23	2	2	2	0.32	2.50	No	0.23	2.50	No
Receptor_24	2	2	2	0.31	2.50	No	0.19	2.50	No
Receptor_25	2	2	2	0.27	2.50	No	0.07	2.50	No
Receptor_26	2	2	2	0.15	2.50	No	0.04	2.50	No
Receptor_27	2	2	2	0.11	2.50	No	0.19	2.50	No
Receptor_28	2	2	2	0.07	2.50	No	0.31	2.50	No
Receptor_29	2	2	2	0.08	2.50	No	0.33	2.50	No
Receptor_30	2	2	2	0.09	2.50	No	0.30	2.50	No
Receptor_31	2	2	2	0.11	2.50	No	0.27	2.50	No
Receptor_32	2	2	2	0.06	2.50	No	0.32	2.50	No
Receptor_33	2	2	2	0.06	2.50	No	0.33	2.50	No
Receptor_34	2	2	2	0.06	2.50	No	0.33	2.50	No
Receptor_35	3	2	3	0.03	2.50	No	0.30	2.50	No
Receptor_36	3	2	3	0.01	2.50	No	0.25	2.50	No
Receptor_37	3	3	3	(0.01)	2.50	No	0.20	2.50	No
Receptor_38	3	3	3	(0.03)	2.50	No	0.13	2.50	No
Receptor_39	3	3	3	(0.05)	2.50	No	0.05	2.50	No
Receptor_40	3	3	3	(0.05)	2.50	No	0.06	2.50	No
Receptor_41	3	3	3	(0.07)	2.50	No	0.02	2.50	No
Receptor_42	3	3	3	(0.08)	2.50	No	(0.03)	2.50	No
Receptor_43	3	3	3	(0.09)	2.50	No	(0.08)	2.50	No
Receptor_44	3	3	3	(0.11)	2.50	No	(0.14)	2.50	No
Receptor_45	3	3	3	(0.13)	2.50	No	(0.20)	2.50	No
Receptor_46	3	3	3	(0.13)	2.50	No	(0.18)	2.50	No
Receptor_47	3	3	3	(0.13)	2.50	No	(0.15)	2.50	No
Receptor_48	3	3	3	(0.15)	2.50	No	(0.22)	2.50	No
Receptor_49	3	3	3	(0.16)	2.50	No	(0.21)	2.50	No
Receptor_50	3	3	3	(0.19)	2.50	No	(0.28)	2.50	No
Receptor_51	3	3	3	(0.20)	2.50	No	(0.33)	2.50	No
Receptor_52	3	3	3	(0.21)	2.50	No	(0.22)	2.50	No
Receptor_53	3	3	3	(0.42)	2.50	No	(0.03)	2.50	No
Receptor_54	3	3	3	(0.55)	2.50	No	(0.14)	2.50	No
Receptor_55	3	3	2	(0.54)	2.50	No	(0.16)	2.50	No
Receptor_56	3	3	2	(0.57)	2.50	No	(0.28)	2.50	No
Receptor_57	3	3	2	(0.60)	2.50	No	(0.31)	2.50	No
Receptor_58	3	3	2	(0.62)	2.50	No	(0.33)	2.50	No
Receptor_59	3	3	3	(0.61)	2.50	No	(0.19)	2.50	No
Receptor_60	3	3	3	(0.67)	2.50	No	(0.26)	2.50	No
Receptor_61	3	3	3	(0.69)	2.50	No	(0.27)	2.50	No
Receptor_62	4	3	3	(0.65)	2.50	No	(0.24)	2.50	No
Receptor_63	4	3	3	(0.55)	2.50	No	(0.15)	2.50	No
Receptor_64	4	3	3	(0.40)	2.50	No	(0.02)	2.50	No
Receptor_65	4	3	3	(0.19)	2.50	No	0.07	2.50	No
Receptor_66	3	3	4	0.04	2.50	No	0.15	2.50	No

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	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_67	3	3	4	0.38	2.50	No	0.32	2.50	No
Receptor_68	3	3	4	0.54	2.50	No	0.54	2.50	No
Receptor_69	4	4	4	0.59	2.50	No	0.53	2.50	No
Receptor_70	3	4	4	0.76	2.50	No	0.63	2.50	No
Receptor_71	4	4	4	0.54	2.50	No	0.47	2.50	No
Receptor_72	4	4	4	0.23	2.50	No	0.03	2.50	No
Receptor_73	3	4	4	0.08	2.50	No	(0.30)	2.50	No
Receptor_74	3	4	4	0.34	2.50	No	(0.25)	2.50	No
Receptor_75	3	4	4	0.28	2.50	No	(0.05)	2.50	No
Receptor_76	4	4	4	0.21	2.50	No	(0.13)	2.50	No
Receptor_77	4	4	4	0.15	2.50	No	(0.33)	2.50	No
Receptor_78	4	4	4	0.04	2.50	No	(0.43)	2.50	No
Receptor_79	4	5	4	(0.08)	2.50	No	(0.51)	2.50	No
Receptor_80	5	5	4	(0.21)	2.50	No	(0.56)	2.50	No
Receptor_81	5	5	5	(0.32)	2.50	No	(0.62)	2.50	No
Receptor_82	5	5	4	(0.37)	2.50	No	(0.64)	2.50	No
Receptor_83	4	5	4	(0.34)	2.50	No	(0.58)	2.50	No
Receptor_84	4	4	4	(0.34)	2.50	No	(0.62)	2.50	No
Receptor_85	4	4	4	(0.31)	2.50	No	(0.60)	2.50	No
Receptor_86	4	4	3	(0.22)	2.50	No	(0.48)	2.50	No
Receptor_87	3	4	3	(0.28)	2.50	No	(0.54)	2.50	No
Receptor_88	3	4	3	(0.18)	2.50	No	(0.46)	2.50	No
Receptor_89	3	3	3	(0.14)	2.50	No	(0.39)	2.50	No
Receptor_90	3	3	3	(0.11)	2.50	No	(0.38)	2.50	No
Receptor_91	3	3	3	(0.06)	2.50	No	(0.39)	2.50	No
Receptor_92	3	3	3	(0.13)	2.50	No	(0.39)	2.50	No
Receptor_93	3	3	3	(0.26)	2.50	No	(0.40)	2.50	No
Receptor_94	3	3	3	(0.33)	2.50	No	(0.12)	2.50	No
Receptor_95	3	3	3	(0.30)	2.50	No	(0.18)	2.50	No
Receptor_96	3	3	3	(0.21)	2.50	No	(0.27)	2.50	No
Receptor_97	3	3	3	(0.11)	2.50	No	(0.26)	2.50	No
Receptor_98	3	4	3	(0.07)	2.50	No	(0.27)	2.50	No
Receptor_99	4	4	4	0.08	2.50	No	(0.18)	2.50	No
Receptor_100	4	4	4	0.30	2.50	No	0.04	2.50	No
Receptor_101	4	4	4	0.44	2.50	No	(0.18)	2.50	No
Receptor_102	4	5	4	0.30	2.50	No	(0.63)	2.50	No
Receptor_103	4	5	4	0.16	2.50	No	(0.69)	2.50	No
Receptor_104	4	4	4	0.41	2.50	No	(0.17)	2.50	No
Receptor_105	4	4	4	0.28	2.50	No	(0.04)	2.50	No
Receptor_106	4	5	4	0.26	2.50	No	(0.07)	2.50	No
Receptor_107	4	5	5	0.24	2.50	No	(0.09)	2.50	No
Receptor_108	5	5	5	0.17	2.50	No	(0.01)	2.50	No
Receptor_109	4	4	5	0.34	2.50	No	0.10	2.50	No
Receptor_110	4	4	4	0.18	2.50	No	0.15	2.50	No
Receptor_111	4	4	4	0.20	2.50	No	0.16	2.50	No
Receptor_112	4	4	4	0.09	2.50	No	0.21	2.50	No
Receptor_113	4	4	4	(0.13)	2.50	No	0.18	2.50	No
Receptor_114	5	4	4	(0.42)	2.50	No	0.05	2.50	No
Receptor_115	5	4	4	(0.51)	2.50	No	(0.16)	2.50	No
Receptor_116	4	4	4	(0.42)	2.50	No	(0.30)	2.50	No
Receptor_117	5	5	4	(0.25)	2.50	No	(0.44)	2.50	No
Receptor_118	5	5	5	(0.04)	2.50	No	(0.57)	2.50	No
Receptor_119	5	6	5	0.13	2.50	No	(0.67)	2.50	No
Receptor_120	6	7	6	0.17	2.50	No	(0.70)	2.50	No
Receptor_121	6	7	6	0.05	2.50	No	(0.64)	2.50	No
Receptor_122	6	6	6	(0.15)	2.50	No	(0.55)	2.50	No
Receptor_123	6	6	5	(0.29)	2.50	No	(0.82)	2.50	No
Receptor_124	5	6	5	(0.19)	2.50	No	(0.82)	2.50	No
Receptor_125	6	6	6	0.22	2.50	No	(0.44)	2.50	No
Receptor_126	6	6	6	0.36	2.50	No	(0.40)	2.50	No
Receptor_127	5	6	5	0.22	2.50	No	(0.38)	2.50	No
Receptor_128	5	5	5	0.07	2.50	No	(0.50)	2.50	No
Receptor_129	5	5	5	(0.06)	2.50	No	(0.61)	2.50	No
Receptor_130	4	5	4	0.00	2.50	No	(0.50)	2.50	No
Receptor_131	4	5	4	0.28	2.50	No	(0.23)	2.50	No
Receptor_132	4	4	4	0.37	2.50	No	(0.19)	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_133	4	4	4	0.43	2.50	No	(0.16)	2.50	No
Receptor_134	3	4	4	0.37	2.50	No	(0.14)	2.50	No
Receptor_135	3	4	4	0.33	2.50	No	(0.15)	2.50	No
Receptor_136	3	4	3	0.30	2.50	No	(0.16)	2.50	No
Receptor_137	3	3	3	0.29	2.50	No	(0.16)	2.50	No
Receptor_138	3	4	4	0.44	2.50	No	(0.13)	2.50	No
Receptor_139	3	4	4	0.39	2.50	No	(0.10)	2.50	No
Receptor_140	3	4	4	0.27	2.50	No	(0.03)	2.50	No
Receptor_141	3	4	4	0.16	2.50	No	0.07	2.50	No
Receptor_142	3	3	4	0.11	2.50	No	0.13	2.50	No
Receptor_143	3	3	3	0.03	2.50	No	0.26	2.50	No
Receptor_144	3	3	3	(0.02)	2.50	No	0.23	2.50	No
Receptor_145	4	3	3	(0.18)	2.50	No	0.08	2.50	No
Receptor_146	3	3	3	(0.16)	2.50	No	0.13	2.50	No
Receptor_147	3	3	3	(0.17)	2.50	No	0.12	2.50	No
Receptor_148	3	3	3	(0.22)	2.50	No	0.03	2.50	No
Receptor_149	4	3	3	(0.25)	2.50	No	(0.03)	2.50	No
Receptor_150	4	3	3	(0.26)	2.50	No	0.03	2.50	No
Receptor_151	4	4	4	(0.33)	2.50	No	0.03	2.50	No
Receptor_152	4	4	3	(0.40)	2.50	No	(0.06)	2.50	No
Receptor_153	4	4	3	(0.38)	2.50	No	(0.06)	2.50	No
Receptor_154	4	4	4	(0.55)	2.50	No	(0.05)	2.50	No
Receptor_155	4	4	4	(0.59)	2.50	No	(0.09)	2.50	No
Receptor_156	4	4	4	(0.60)	2.50	No	(0.10)	2.50	No
Receptor_157	4	4	4	(0.62)	2.50	No	(0.09)	2.50	No
Receptor_158	5	4	4	(0.70)	2.50	No	(0.13)	2.50	No
Receptor_159	5	4	4	(0.76)	2.50	No	(0.16)	2.50	No
Receptor_160	5	4	4	(0.78)	2.50	No	(0.15)	2.50	No
Receptor_161	5	4	4	(0.75)	2.50	No	(0.09)	2.50	No
Receptor_162	5	4	4	(0.67)	2.50	No	(0.01)	2.50	No
Receptor_163	5	4	5	(0.52)	2.50	No	0.22	2.50	No
Receptor_164	5	5	5	(0.47)	2.50	No	0.16	2.50	No
Receptor_165	6	5	5	(0.66)	2.50	No	0.05	2.50	No
Receptor_166	6	6	6	(0.86)	2.50	No	(0.02)	2.50	No
Receptor_167	7	6	6	(1.01)	2.50	No	0.03	2.50	No
Receptor_168	8	7	7	(1.22)	2.50	No	(0.07)	2.50	No
Receptor_169	9	7	7	(1.39)	2.50	No	(0.09)	2.50	No
Receptor_170	8	7	7	(1.33)	2.50	No	(0.11)	2.50	No
Receptor_171	8	7	7	(0.93)	2.50	No	(0.03)	2.50	No
Receptor_172	7	7	7	(0.57)	2.50	No	(0.01)	2.50	No
Receptor_173	8	8	8	(0.65)	2.50	No	(0.06)	2.50	No
Receptor_174	8	8	7	(0.92)	2.50	No	(0.10)	2.50	No
Receptor_175	8	7	7	(1.76)	2.50	No	(0.26)	2.50	No
Receptor_176	8	7	7	(1.85)	2.50	No	(0.39)	2.50	No
Receptor_177	8	7	6	(1.72)	2.50	No	(0.43)	2.50	No
Receptor_178	7	6	6	(1.45)	2.50	No	(0.42)	2.50	No
Receptor_179	6	6	5	(1.11)	2.50	No	(0.46)	2.50	No
Receptor_180	6	5	5	(0.50)	2.50	No	(0.05)	2.50	No
Receptor_181	5	5	5	(0.37)	2.50	No	0.17	2.50	No
Receptor_182	5	4	5	(0.33)	2.50	No	0.15	2.50	No
Receptor_183	5	4	4	(0.26)	2.50	No	0.16	2.50	No
Receptor_184	5	4	4	(0.29)	2.50	No	0.19	2.50	No
Receptor_185	4	4	4	(0.12)	2.50	No	0.15	2.50	No
Receptor_186	4	5	4	0.01	2.50	No	(0.35)	2.50	No
Receptor_187	4	4	4	0.25	2.50	No	0.18	2.50	No
Receptor_188	4	4	4	0.35	2.50	No	0.04	2.50	No
Receptor_189	4	4	4	0.26	2.50	No	(0.01)	2.50	No
Receptor_190	4	4	4	0.16	2.50	No	0.05	2.50	No
Receptor_191	4	4	4	0.17	2.50	No	0.04	2.50	No
Receptor_192	4	4	4	0.19	2.50	No	0.05	2.50	No
Receptor_193	3	4	4	0.19	2.50	No	0.09	2.50	No
Receptor_194	3	3	3	0.17	2.50	No	0.12	2.50	No
Receptor_195	3	3	3	(0.00)	2.50	No	0.16	2.50	No
Receptor_196	3	3	3	(0.14)	2.50	No	0.10	2.50	No
Receptor_197	3	3	3	(0.23)	2.50	No	(0.02)	2.50	No
Receptor_198	3	3	3	(0.24)	2.50	No	(0.04)	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_199	3	3	3	(0.24)	2.50	No	(0.05)	2.50	No
Receptor_200	3	3	3	(0.24)	2.50	No	(0.05)	2.50	No
Receptor_201	3	3	3	(0.23)	2.50	No	(0.05)	2.50	No
Receptor_202	3	3	3	(0.21)	2.50	No	(0.04)	2.50	No
Receptor_203	3	3	3	(0.20)	2.50	No	(0.04)	2.50	No
Receptor_204	3	3	3	(0.19)	2.50	No	(0.04)	2.50	No
Receptor_205	3	3	3	(0.14)	2.50	No	0.01	2.50	No
Receptor_206	3	2	3	(0.07)	2.50	No	0.07	2.50	No
Receptor_207	3	2	3	(0.02)	2.50	No	0.12	2.50	No
Receptor_208	2	2	2	0.01	2.50	No	0.14	2.50	No
Receptor_209	2	2	2	0.05	2.50	No	0.12	2.50	No
Receptor_210	2	2	3	0.10	2.50	No	0.10	2.50	No
Receptor_211	3	2	3	0.07	2.50	No	0.09	2.50	No
Receptor_212	3	3	3	0.04	2.50	No	0.08	2.50	No
Receptor_213	3	3	3	0.01	2.50	No	0.07	2.50	No
Receptor_214	3	3	3	(0.01)	2.50	No	0.08	2.50	No
Receptor_215	3	2	3	(0.02)	2.50	No	0.08	2.50	No
Receptor_216	3	2	3	(0.06)	2.50	No	0.09	2.50	No
Receptor_217	3	3	3	(0.04)	2.50	No	0.08	2.50	No
Receptor_218	3	3	3	(0.04)	2.50	No	0.08	2.50	No
Receptor_219	3	3	3	(0.05)	2.50	No	0.08	2.50	No
Receptor_220	3	3	3	(0.05)	2.50	No	0.09	2.50	No
Receptor_221	3	3	3	(0.04)	2.50	No	0.12	2.50	No
Receptor_222	4	4	4	(0.01)	2.50	No	0.17	2.50	No
Receptor_223	4	4	4	0.03	2.50	No	0.20	2.50	No
Receptor_224	4	4	4	0.08	2.50	No	0.18	2.50	No
Receptor_225	4	4	4	0.12	2.50	No	0.12	2.50	No
Receptor_226	4	4	4	0.14	2.50	No	0.06	2.50	No
Receptor_227	4	4	4	0.10	2.50	No	0.17	2.50	No
Receptor_228	4	4	4	0.06	2.50	No	0.25	2.50	No
Receptor_229	5	4	5	(0.01)	2.50	No	0.28	2.50	No
Receptor_230	5	4	5	(0.06)	2.50	No	0.23	2.50	No
Receptor_231	5	4	4	(0.10)	2.50	No	0.16	2.50	No
Receptor_232	5	5	5	(0.17)	2.50	No	0.09	2.50	No
Receptor_233	5	5	5	(0.24)	2.50	No	0.00	2.50	No
Receptor_234	6	6	6	(0.33)	2.50	No	(0.12)	2.50	No
Receptor_235	7	6	6	(0.33)	2.50	No	0.03	2.50	No
Receptor_236	8	7	7	(0.49)	2.50	No	(0.28)	2.50	No
Receptor_237	6	6	6	(0.51)	2.50	No	(0.54)	2.50	No
Receptor_238	6	6	5	(0.44)	2.50	No	(0.44)	2.50	No
Receptor_239	5	5	5	(0.38)	2.50	No	(0.18)	2.50	No
Receptor_240	6	6	5	(0.42)	2.50	No	(0.18)	2.50	No
Receptor_241	5	5	5	(0.31)	2.50	No	(0.20)	2.50	No
Receptor_242	4	4	4	(0.23)	2.50	No	(0.20)	2.50	No
Receptor_243	4	4	4	(0.16)	2.50	No	(0.19)	2.50	No
Receptor_244	4	4	4	(0.11)	2.50	No	(0.17)	2.50	No
Receptor_245	3	3	3	(0.08)	2.50	No	(0.16)	2.50	No
Receptor_246	3	3	3	(0.07)	2.50	No	(0.06)	2.50	No
Receptor_247	3	3	3	(0.06)	2.50	No	0.13	2.50	No
Receptor_248	3	3	3	(0.04)	2.50	No	0.20	2.50	No
Receptor_249	3	3	3	(0.03)	2.50	No	0.13	2.50	No
Receptor_250	2	2	2	(0.10)	2.50	No	(0.11)	2.50	No
Receptor_251	2	2	2	(0.06)	2.50	No	(0.08)	2.50	No
Receptor_252	2	2	2	0.00	2.50	No	(0.00)	2.50	No
Receptor_253	2	2	2	0.01	2.50	No	0.02	2.50	No
Receptor_254	2	2	2	0.02	2.50	No	0.05	2.50	No
Receptor_255	2	2	2	0.05	2.50	No	0.09	2.50	No
Receptor_256	2	2	2	(0.08)	2.50	No	(0.05)	2.50	No
Receptor_257	3	3	2	(0.17)	2.50	No	(0.14)	2.50	No
Receptor_258	3	3	3	(0.07)	2.50	No	(0.02)	2.50	No
Receptor_259	2	2	2	(0.02)	2.50	No	0.04	2.50	No
Receptor_260	2	2	2	0.09	2.50	No	0.15	2.50	No
Receptor_261	2	2	2	0.12	2.50	No	0.15	2.50	No
Receptor_262	2	2	3	0.16	2.50	No	0.15	2.50	No
Receptor_263	2	2	2	0.15	2.50	No	0.20	2.50	No
Receptor_264	2	2	2	(0.08)	2.50	No	(0.07)	2.50	No

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Receptor ID	Max Concentrations (ug/m3)			2019 With Project - 2012 Baseline			2019 With Project - 2019 Without Project		
	2012	2019 NO	2019	Project			Project		
	Baseline	Project	Project	Increase	Threshold	Exceeds?	Increase	Threshold	Exceeds?
Receptor_265	2	2	2	(0.13)	2.50	No	(0.15)	2.50	No
Receptor_266	2	2	2	(0.09)	2.50	No	(0.16)	2.50	No
Receptor_267	2	2	2	(0.13)	2.50	No	(0.23)	2.50	No
Receptor_268	2	2	2	(0.15)	2.50	No	(0.29)	2.50	No
Receptor_269	2	3	2	(0.15)	2.50	No	(0.29)	2.50	No
Receptor_270	3	3	3	(0.15)	2.50	No	(0.12)	2.50	No
Receptor_271	3	3	3	(0.06)	2.50	No	0.14	2.50	No
Receptor_272	3	3	4	1.09	2.50	No	0.82	2.50	No
Receptor_273	3	3	3	0.80	2.50	No	0.61	2.50	No
Receptor_274	3	3	3	(0.16)	2.50	No	(0.08)	2.50	No
Receptor_275	3	3	3	(0.16)	2.50	No	(0.04)	2.50	No
Receptor_276	3	3	3	(0.20)	2.50	No	(0.12)	2.50	No
Receptor_277	3	3	3	(0.28)	2.50	No	(0.24)	2.50	No
Receptor_278	4	4	3	(0.39)	2.50	No	(0.35)	2.50	No
Receptor_279	4	4	3	(0.47)	2.50	No	(0.43)	2.50	No
Receptor_280	4	4	3	(0.52)	2.50	No	(0.48)	2.50	No
Receptor_281	4	4	4	(0.54)	2.50	No	(0.47)	2.50	No
Receptor_282	4	4	4	(0.50)	2.50	No	(0.40)	2.50	No
Receptor_283	4	4	4	(0.37)	2.50	No	(0.26)	2.50	No
Receptor_284	4	4	4	(0.11)	2.50	No	(0.07)	2.50	No
Receptor_285	5	5	5	0.13	2.50	No	0.15	2.50	No
Receptor_286	5	5	5	(0.19)	2.50	No	0.05	2.50	No
Receptor_287	5	5	5	(0.33)	2.50	No	0.02	2.50	No
Receptor_288	6	5	5	(0.40)	2.50	No	(0.04)	2.50	No
Receptor_289	6	5	5	(0.34)	2.50	No	0.11	2.50	No
Receptor_290	5	5	6	0.20	2.50	No	0.45	2.50	No
Receptor_291	5	5	6	0.99	2.50	No	0.77	2.50	No
Receptor_292	5	4	5	0.42	2.50	No	0.85	2.50	No
Receptor_293	5	4	5	(0.12)	2.50	No	0.94	2.50	No
Receptor_294	6	5	5	(1.22)	2.50	No	0.55	2.50	No
Receptor_295	7	5	6	(1.41)	2.50	No	0.61	2.50	No
Receptor_296	7	5	6	(0.81)	2.50	No	1.02	2.50	No
Receptor_297	7	5	7	(0.25)	2.50	No	1.27	2.50	No
Receptor_298	7	6	6	(0.97)	2.50	No	0.53	2.50	No
Receptor_299	7	5	6	(1.10)	2.50	No	0.39	2.50	No
Receptor_300	7	5	5	(1.31)	2.50	No	0.12	2.50	No
Receptor_301	7	5	5	(1.46)	2.50	No	(0.13)	2.50	No
Receptor_302	7	6	5	(1.23)	2.50	No	(0.10)	2.50	No
Receptor_303	7	6	6	(0.97)	2.50	No	(0.20)	2.50	No
Receptor_304	6	6	6	(0.75)	2.50	No	(0.51)	2.50	No
Receptor_305	6	6	6	(0.59)	2.50	No	(0.37)	2.50	No
Receptor_306	6	6	6	(0.43)	2.50	No	(0.35)	2.50	No
Receptor_307	6	6	6	(0.16)	2.50	No	(0.35)	2.50	No
Receptor_308	5	6	5	0.01	2.50	No	(0.27)	2.50	No
Receptor_309	5	6	5	(0.11)	2.50	No	(0.38)	2.50	No
Receptor_310	5	5	5	0.10	2.50	No	0.20	2.50	No
Receptor_311	5	5	5	0.39	2.50	No	0.49	2.50	No
Receptor_312	5	5	6	0.65	2.50	No	0.66	2.50	No
Receptor_313	5	5	5	0.57	2.50	No	0.51	2.50	No
Receptor_314	5	5	5	0.42	2.50	No	0.44	2.50	No
Receptor_315	5	5	5	0.28	2.50	No	0.39	2.50	No
Receptor_316	5	4	5	0.23	2.50	No	0.40	2.50	No
Receptor_317	4	4	5	0.18	2.50	No	0.40	2.50	No
Receptor_318	4	4	4	0.15	2.50	No	0.39	2.50	No
Receptor_319	4	4	4	0.12	2.50	No	0.38	2.50	No
Receptor_320	4	4	4	0.14	2.50	No	0.42	2.50	No
Receptor_321	4	4	4	0.18	2.50	No	0.47	2.50	No
Receptor_322	4	3	4	0.26	2.50	No	0.56	2.50	No
Receptor_323	4	3	4	0.32	2.50	No	0.61	2.50	No
Receptor_324	3	3	4	0.37	2.50	No	0.55	2.50	No
Receptor_325	3	3	4	0.40	2.50	No	0.49	2.50	No
Receptor_326	3	3	3	0.42	2.50	No	0.43	2.50	No
Receptor_327	12	10	9	(3.04)	2.50	No	(1.31)	2.50	No
Maximum	12	10	9	1.09	2.50	No	1.27	2.50	No

