# AIR QUALITY AND GREENHOUSE GAS REPORT

## San Antonia Mobile Home Park
## Onsite Sewer, Water, and Stormwater Improvement Project

**Mecca, Riverside County, California**

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# SECTION I. INTRODUCTION & PROJECT DESCRIPTION

## A. Introduction

The purpose of this report is to assess the potential air quality and greenhouse gas impacts associated with the construction and operation of the proposed San Antonio MHP Onsite Sewer, Water and Stormwater Improvement Project. This report describes the current air quality and greenhouse gas regulations and provides historical air quality monitoring concentrations and minimization measures to further reduce projected emissions of criteria pollutants and greenhouse gases.

## B. Project Description

Pueblo Unido Community Development Corporation (CDC) (applicant), herein referred to as Pueblo Unido, is proposing to construct new onsite sewer, water, and stormwater systems to serve the San Antonio del Desierto mobile home park (MHP) (Proposed Project). The Project site is located immediately east of Lincoln Street and approximately 0.25 miles north of Avenue 68 in the unincorporated community of Mecca, Riverside County, California. The MHP will consist of 134 mobile home lots, retention basins, well and onsite water storage, and recreational amenities on approximately 32 acres.

**Sewer Collection System**
The existing onsite sanitation system consists of one aerobic sewer lagoon, and two additional evaporation lagoons, that receive effluent from septic tanks and onsite sewer collection pipes built without the benefit of a permit. Sewage from the park flows by gravity to an existing on-site lift station and is pumped into the aerobic lagoon, and then into the evaporation lagoons through a distribution system. Remaining solids are periodically removed and disposed of in an approved manner. Current use of the existing system will continue until completion of the new sewerage collection system, after which it will be decommissioned.

The Proposed Project will involve the construction of on-site sewage collection lines and laterals that will convey sewage from each residence to the CVWD lift station at Lincoln Street and Avenue 68. The onsite sewer system will consist of approximately 21 manholes, approximately 8,100 linear feet of 4” laterals, and approximately 7,200 linear feet of 8” sewer main extending and connecting to the CVWD sewer line extension point of connection. CVWD’s off-site sewage lift station has a capacity of 3,000 gallons per day. Waste from the lift station will be transported via a force main to the CVWD Wastewater Reclamation Plant No. 4 (WRP-4) at Fillmore Street and Avenue 63 in Thermal, California.

After the mobile home park is connected to the CVWD system, including the new CVWD 12” sewer line which will run under Lincoln Street along the westerly border of the property, the decommissioning of the onsite sewer lagoons will begin. A phased pond abandonment plan will be prepared and will begin with evaporation of existing liquids, followed by testing of the resulting sludge for contaminants. The remaining sludge will be allowed to dry in-situ for approximately one year. Based on soils testing, the remaining sludge will either be disposed of locally or sent to an EPA-approved solid waste disposal facility. During the construction process and prior to decommissioning of the ponds the sewage pond

areas will continue to be perimeter-fenced with 6' high chain link, locked gates, and made inaccessible to the public.

**Water Well & Distribution System**

The current San Antonio del Desierto Water System (SADWS) serves 95 Equivalent Dwelling Units (EDUs). The applicant has obtained a Conditional Use Permit (CUP03645) to develop a new park to 134 EDUs. The proposed onsite water distribution system will consist of approximately 8,350 linear feet of 6" water main interconnecting the dwelling units to one of two water source options.

Water Source Option No. 1: The first option for sourcing domestic water for the project is to have the onsite water distribution system connect to CVWD's future offsite water distribution system, which will consist of approximately 24,000 linear feet of 24-30" pipeline to be located within Avenue 66, about a mile north of the Project area. Once CVWD's Avenue 66 pipeline is functional, approximately 5,000 linear feet of 12" pipeline is proposed by CVWD to be installed in Lincoln Avenue to serve the Project and potentially one other mobile home 1,000 feet south of the Project. CVWD will complete the environmental documentation for all offsite waterline improvements.

Water Source Option No. 2: If CVWD's offsite water distribution system is not available at the time of Project development, option No. 2 is to have the following project components constructed onsite (also see Exhibit 7):

- A new onsite primary well with a 650 feet depth, 10" casing to provide 350 gpm at 60 psi,
- An arsenic coagulation and filtration system to provide 330 gpm at 60 psi,
- A 10,000-gallon reclamation tank,
- A backwash pump,
- A fire pump to provide 1,000 gpm for one hour of service,
- A 20,000-gallon hydropneumatic storage tank,
- Dual booster pumps for water distribution,
- Standby power with shaded enclosure,
- 1,300 square feet accessory building, and a
- 302,400-gallon water reservoir.

The well and storage tank would be located on the northeast corner of the Project site. In addition to serving the day-to-day domestic water needs of the MHP residents, the storage tank will also serve as an emergency water supply and mandated fire flows for the MHP. The storage tank would either be reduced in size or eliminated if the CVWD offsite infrastructure improvements become available to the Project in a timely manner.

The proposed onsite sewer and water lines will be buried beneath un-disturbed and/or compacted soil to prevent deflections and low points in the lines where water and solids can accumulate and could freeze or block the line. The project will require a net import of approximately 41,468 cubic yards of fill material to raise portions of the site and ensure positive gravity flow to the CVWD lift station.

**Stormwater Retention System**

To prevent flooding of the site or downstream properties, Riverside Country requires that the Project retain the incremental runoff from a 100-year storm event. Per County requirements, the Project will grade the entire site for properly engineered drainage including dwelling unit pads and streets with curb

and gutters to carry stormwater flow to on-site retention facilities to be located at the southernmost portion of the site with a combined storage capacity of approximately 284,484 cubic yards (CY) (See Exhibit 8). The Project will also install subsurface tile drainage in accordance with CVWD standards below the retention facilities with a gravel filtration system that allows stormwater to percolate into the groundwater basin. Stormwater will flow into the retention basins and percolate through the gravel filter and ultimately discharge shallow groundwater to the adjacent Lincoln Street agricultural drainage channel. This system will not interfere or conflict with CVWD facilities or standard operating procedures for the existing drain system.

### C. Project Location

The project site is located immediately east of Lincoln Street and west of State Highway 111, between Avenue 66 and Avenue 68 in the community of Mecca, Riverside County, California. The proposed infrastructure will occur within the San Antonio MHP area. The project site is located within the APN 727-271-018.

# SECTION II. EXISTING CONDITIONS

## Introduction

The Proposed Project is located within the Salton Sea Air Basin (SSAB) and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Air quality in the Salton Sea Air Basin has been impacted by emissions associated with increased development, population growth, and vehicle emissions. Although air pollution is emitted locally from various sources, some of the degradation of air quality within the Salton Sea Air Basin can be attributed to sources tributary to but located outside of the basin. In the project area, air quality is regulated by the SCAQMD, as well as federal and state policy.

### A. Climatic Conditions and Air Quality

The Proposed Project is located within the Coachella Valley portion of the SSAB immediately east of the San Jacinto Mountains. Meteorological conditions are largely attributable to the low desert geographic setting and the mountains surrounding the region that isolate the Coachella Valley from moderating coastal influences and create a hot and dry low-lying desert condition. As the desert heats up a large area of thermal low pressure develops, which draws dense, cooler coastal air through the narrow San Gorgonio Pass and into the valley, generating strong winds that cross the most active fluvial (water-related) erosion zones in the valley. These strong winds sweep up, suspend and transport large quantities of sand and dust, reducing visibility, damaging property, and constituting a significant health threat. The region is also subject to seasonal northeasterly Santa Ana winds that are associated with high pressure parked over Nevada and the four corners region.

The Coachella Valley portion of the SSAB is typical of a low desert climate, with summer temperatures that frequently exceed 110°F and drop into the 20's during winter. The valley floor historically receives an average of four to six inches of rainfall per year with greater precipitation at higher elevations.

Air inversions, where a layer of stagnant air is trapped near the ground and is loaded with pollutants from motor vehicles and other sources, occasionally occur in the Coachella Valley due to local geological and climatic conditions. Inversions create conditions of haziness caused by suspended water vapor, dust, and a variety of chemical aerosols. Due to local climactic conditions, inversion layers generally form 6,000 to 8,000 feet above the desert floor.

Regulating agencies, including SCAQMD, have developed standards and regulations to reduce emissions and enhance air quality throughout the SSAB. These are further described below.

### B. Air Quality Management and Regulation

Federal and state agencies have adopted air quality standards for a variety of pollutants. In 1971, the Environmental Protection Agency (EPA) established the National Ambient Air Quality Standards (NAAQS) for managing criteria pollutants. The California Clean Air Act (CCAA) became effective on January 1, 1989 and mandated health-based air quality standards at the state level. The California Air Resources Board (CARB) is responsible for enforcing state standards, which are generally more stringent than federal

standards. One of the ways standards are applied is through State Implementation Plans (SIP), which are prepared to assist regional air quality management districts in meeting the federal and state ambient air quality standards in accordance with the deadlines specified in the federal Clean Air Act (CAA) and emission reduction targets of the California Clean Air Act.

Regional and local agencies have also assumed some responsibility for assuring that state and federal air quality standards are achieved. For the Coachella Valley, including the subject project site, the South Coast Air Quality Management District (SCAQMD) is responsible for establishing air quality measurement criteria and relevant management policies for the SSAB.

The 2003 $PM_{10}$ Coachella Valley State Implementation Plan (CVSIP) was jointly developed by the SCAQMD, Coachella Valley Association of Governments (CVAG) and its member cities, and was approved by the U.S. EPA. The 2003 PM10 CVSIP updated the 1990 plan, which was drafted as a requirement of the federal Clean Air Act to demonstrate expeditious attainment of PM10 standards.[1] On April 18, 2003, the EPA approved the updated CVSIP.

The SSAB is subject to the provisions of the SCAQMD Rule Book,[2] which sets forth policies and other measures designed to meet federal and state ambient air quality standards. These rules, along with SCAQMD's 2012 Air Quality Management Plan[3] are intended to satisfy the planning requirements of both the federal and state Clean Air Acts. The SCAQMD also monitors daily pollutant levels and meteorological conditions throughout the District. Currently there are two monitoring sites in the Coachella Valley, one in Palm Springs and one in Indio.

The California Environmental Quality Act (CEQA) also sets forth standards to determine a project's potential to affect air quality. These standards as defined by the California Environmental Quality Act (CEQA) are described below.

**Air Quality Significance Thresholds**

The following significant thresholds or criteria are not strictly those recommended in § 15064.7 of the CEQA Guidelines, rather they are derived from Appendix G of the Guidelines, and are used to determine if and to what extent a project may have a potentially significant impact on air quality. The project would have a significant effect to air quality if the Proposed Project would:

a) Conflict with or obstruct implementation of the applicable air quality plan.
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
c) Expose sensitive receptors to substantial pollutant concentrations.
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

In addition, the Proposed Project would be considered to have a significant effect on greenhouse gas emissions if it is determined that the project would:

1 "2003 Coachella Valley PM10 State Implementation Plan, August 1, 2003, p.ES-1.
2 South Coast Air Quality Management District Rules and Regulations, Adopted February 4, 1977.
3 "2016 Air Quality Management Plan," prepared by the South Coast Air Quality Management District.

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

A significant effect on the environment is defined as a "substantial, or potentially substantial, adverse change to the environment" (California Public Resources Code Section 21068).

## C. Air Quality Standards

Federal and state air quality standards established for criteria pollutants are designed to protect the general population and especially that segment of the population that is most susceptible to respiratory distress or infection, including the elderly, children, asthmatics, or those who are weak from disease or illness.

The following air pollutants are collectively known as criteria air pollutants and are defined as those pollutants for which established air quality standards have been adopted by federal and state governments:

Ozone ($O_3$) is a pungent, colorless, toxic gas, and a component of photochemical smog. It is formed when byproducts of combustion react in the presence of ultraviolet sunlight. This process takes place in the atmosphere where oxides of nitrogen combine with reactive organic gases, such as hydrocarbons. Exposure to ozone can result in diminished breathing capacity, increased sensitivity to infections, and inflammation of the lung tissue. Children and people with pre-existing lung disease are most susceptible to the effects of ozone.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas and a byproduct from the partial combustion of fossil fuels, most notably from automobiles and other motor vehicles. Carbon monoxide passes through the lungs directly into the blood stream and reduces the amount of oxygen reaching the vital organs, such as the heart, brain and tissues. In high concentrations, carbon monoxide can contribute to the development of heart disease, anemia, and impaired psychological behavior. Individuals that have heart and blood diseases, smokers, babies in utero, and people with chronic hypoxemia are most susceptible to the effects of CO. The SSAB is in non-attainment for the federal 8-hour $O_3$ standard.

Nitrogen Oxide ($NO_x$) includes Nitric oxide (NO) and Nitrogen dioxide ($NO_2$), which are the primary oxides of nitrogen, and combined are known as nitrogen oxides. These oxides are produced at high temperatures during combustion as byproducts of motor vehicles, power plants, and off-road equipment. NOx contributes to the formation of ozone serving as the primary receptor of ultraviolet light and initiating the photochemical reaction. Short-term exposure to nitrogen dioxide can result in airway constriction, diminished lung capacity, and is highly toxic by inhalation. Populations living near roadways are more likely to experience effects of nitrogen oxides due to elevated exposure to motor vehicle exhaust. The SSAB is in attainment for $NO_2$.

Sulfur Dioxide ($SO_2$) results from the combustion of high-sulfur content fuels, such as coal and petroleum. Sources include motor vehicle fuel combustion, chemical manufacturing plants, and sulfur

recovery plants. Sulfur dioxide is a colorless, pungent, extremely irritating gas that can cause airway constriction and severe breathing difficulties in asthmatics. High levels of exposure can cause fluid accumulation in the lungs, damage to lung tissue, and sloughing off of cells lining the respiratory tract. The SSAB is in attainment for $SO_2$.

Particulate Matter ($PM_{10}$ and $PM_{2.5}$) consist of fine suspended particles of ten microns or smaller in diameter, and are the byproducts of road dust, sand, diesel soot, windstorms, and the abrasion of tires and brakes. The elderly, children and adults with pre-existing respiratory or cardiovascular disease are most susceptible to the effects of PM. Elevated $PM_{10}$ and $PM_{2.5}$ levels are also associated with an increase in mortality rates, respiratory infections, occurrences and severity of asthma attacks and hospital admissions. The SSAB is a non- attainment area for $PM_{10}$ and is classified as attainment/unclassifiable for $PM_{2.5}$.

Volatile Organic Compounds (VOC) are also known as Reactive Organic Gas (ROG). This class of pollutants has no state or federal ambient air quality standards and is not classified as criteria pollutants; however, they are regulated because they are responsible for contributing to the formation of ozone. They also contribute to higher $PM_{10}$ levels because they transform into organic aerosols when released into the atmosphere. VOCs pose a health threat when people are exposed to high concentrations. Benzene, for example, is a hydrogen component of VOC emissions known to be a carcinogen.

Lead (Pb) occurs in the atmosphere as particulate matter resulting from the manufacturing of batteries, paint, ink, and ammunition. Exposure to lead can result in anemia, kidney disease, gastrointestinal dysfunction, and neuromuscular and neurological disorders. Babies in utero, infants, and children are especially susceptible to health risks associated with exposure to lead by impacting the central nervous system and cause learning disorders. The SSAB is in attainment for lead.

Table 1 on the following page shows the state and national ambient air quality standards for criteria pollutants.

**Table 1**
**State and National Ambient Air Quality Standards**

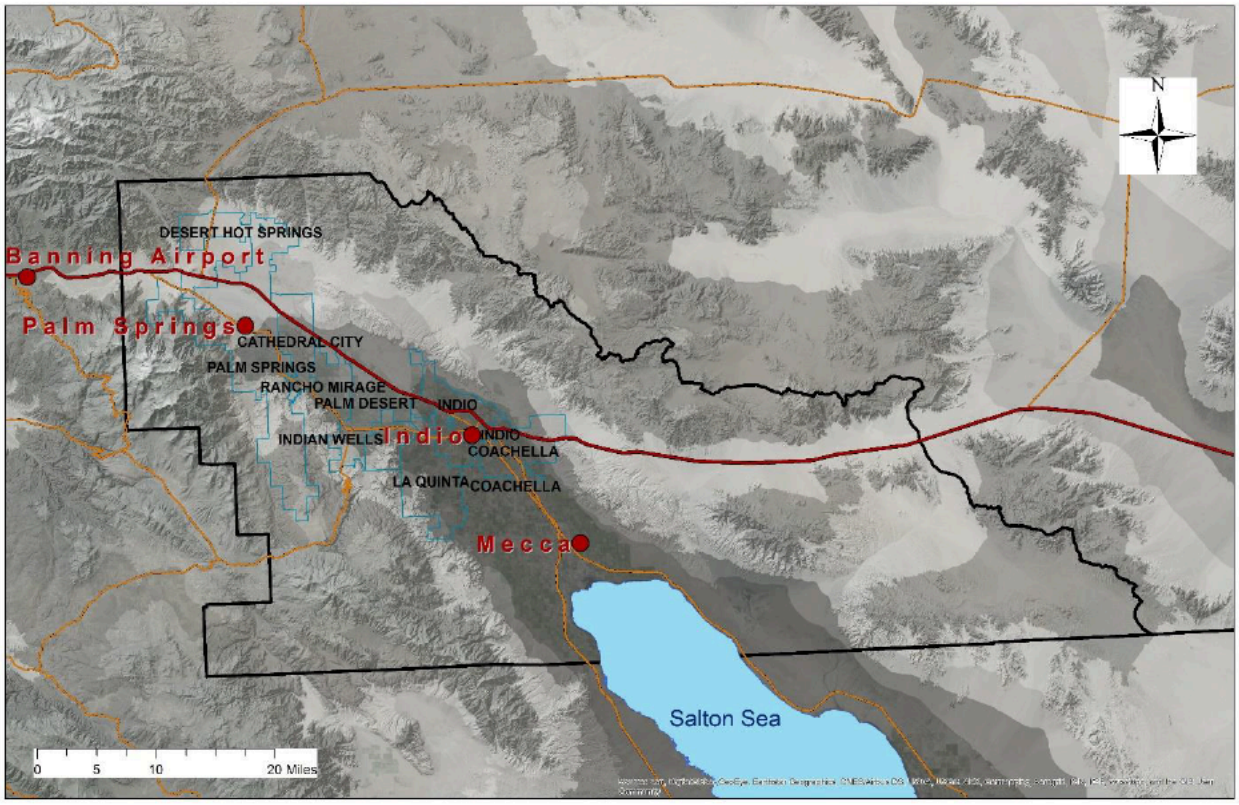
| Pollutant | State Standards | | National Standards** | |
|---|---|---|---|---|
| | Avg. Time | Concentration | Avg. Time | Concentration |
| Ozone ($O_3$) | 1-hour<br>8-hour | 0.09 ppm<br>0.07 ppm | 1-hour<br>8-hour | None<br>0.070 ppm |
| Carbon Monoxide (CO) | 1-hour<br>8-hour | 20.0 ppm<br>9.0 ppm | 1-hour<br>8-hour | 35.0 ppm<br>9.0 ppm |
| Nitrogen Dioxide ($NO_2$) | 1-hour<br>AAM | 0.18 ppm<br>0.030 ppm | 1-hour<br>AAM | 0.10 ppm<br>0.053 ppm |
| Sulfur Dioxide ($SO_2$) | 1-hour<br>24-hour<br>AAM | 0.25 ppm<br>0.04 ppm<br>None | 1-hour<br>24-hour<br>AAM | 0.075 ppm<br>0.14 ppm<br>0.03 ppm |
| Particulate Matter ($PM_{10}$) | 24-hour<br>AAM | 50 $\mu g/m^3$<br>20 $\mu g/m^3$ | 24-hour<br>AAM | 150 $\mu g/m^3$<br>None |

| | | | | |
|---|---|---|---|---|
| Particulate Matter ($PM_{2.5}$) | AAM<br>24-hour | 12 μg/$m^3$<br>None | AAM<br>24-hour | 12 μg/$m^3$<br>35 μg/$m^3$ |
| Lead | 30-day Avg. | 1.5 μg/$m^3$ | 3-month Avg. | 0.15 μg/$m^3$ |
| Visibility Reducing Particles | 8-hour | No standard | No Federal Standards | |
| Sulfates | 24-hour | 25μg/$m^3$ | | |
| Hydrogen Sulfide | 1-hour | 0.03 ppm | | |
| Vinyl Chloride | 24-hour | 0.01 ppm | | |
| Source: California Air Resources Board, last checked 1/3/19.<br>Notes: ppm = parts per million; ppb= parts per billion; μg/ $m^3$ = micrograms per cubic meter of air; AAM = Annual Arithmetic Mean. | | | | |

The air quality of a particular locale is considered to be in attainment if the measured ambient air pollutant levels for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, and $PM_{10}$ and $PM_{2.5}$ are not exceeded and all other standards are not equaled or exceeded at any time in any consecutive three-year period. Attainment also assumes the national standards (other than $O_3$, $PM_{10}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The $O_3$ standard is in attainment when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For $PM_{10}$, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

## D. Regional Air Quality Monitoring

The South Coast Air Quality Management District operates and maintains three air quality monitoring stations within Source Receptor Area (SRA) 30 (Coachella Valley). SR 30 includes the Indio and Palm Springs monitoring stations, which have been operational since 1985 and 1987, respectively. The Mecca monitoring station has been in operation since 2013, however monitoring data has not yet been released. The map below shows the locations of the three monitoring stations in the Coachella Valley.




The following tables show the maximum concentration and number of days annually that state and federal standards for ozone and particulate matter ($PM_{10}$ and $PM_{2.5}$) were exceeded between 2010 and 2017 in the Coachella Valley.

Table 2 shows that federal and state 24-hour standards for $PM_{10}$ were exceeded more frequently at the Indio station between 2010 and 2017. Limited 24-hour state data has been provided from all three stations over the past several years; however, it is assumed that $PM_{10}$ levels continue to exceed state standards until otherwise reported.

**Table 2**
**$PM_{10}$ Monitoring Data for the Coachella Valley**

| Monitoring Station | Year | Maximum Concentration (µg/m³/24 hours) ** | No. Days Exceeding 24-hr. Standards | | Annual Average (µg/m³) |
|---|---|---|---|---|---|
| | | | Federal[1] | State[2] | AAM[3] |
| Palm Springs | 2010 | 144.8 | 0.0 | 0.0 | 19.4 |
| | 2011 | 396.9 | 2.0 | 0.0 | 21.7 |
| | 2012 | 143.4 | 0.0 | 0.0 | 19.9 |
| | 2013 | 185.8 | 1.0 | 13.1 | 23.1 |
| | 2014 | 313.8 | 1.1 | * | 25.4 |
| | 2015 | 199.0 | 1.0 | * | 20.9 |
| | 2016 | 447.2 | 1.1 | * | 23.1 |
| | 2017 | 105.6 | 0.0 | * | 22.1 |
| Indio | 2010 | 107.0 | 0.0 | 23.9 | 28.8 |
| | 2011 | 375.9 | 2.0 | 18.6 | 32.6 |
| | 2012 | 270.6 | * | 43.2 | 33.6 |
| | 2013 | 255.2 | 3.0 | 85.2 | 37.5 |
| | 2014 | 322.3 | 6.1 | 94.9 | 43.5 |
| | 2015 | 381.0 | * | * | 44.0 |
| | 2016 | 393.2 | * | * | 37.0 |
| | 2017 | 198.6 | 1.0 | * | 34.8 |
| Mecca | 2014 | * | * | * | * |
| | 2015 | 306.4 | 5.0 | * | 44.2 |
| | 2016 | 468.9 | * | * | 41.1 |
| | 2017 | 477.6 | * | 81.5 | 47.5 |

Source: Annual air quality site monitoring reports per ARB. http://www.arb.ca.gov/adam/, accessed November 2018.
[1] = > 150 µg/m³ in 24 hour period; [2] = > 50 µg/m³ in 24 hour period; [3] Federal Annual Average Standard AAM > 50µg/m³ revoked December 17, 2006. State standard is AAM > 20µg/m³
4 State Annual Average Standard = AGM > 20µg/m³
* There are insufficient (or no) data available to determine the value.
** Data may include exceptional events.

Table 3 shows that both the federal 24-hour $PM_{2.5}$ standard and the AAM state standard of >12 µg/$m^3$ have not been exceeded at the Palm Springs and Indio monitoring stations from 2010 to 2017.

**Table 3**
**$PM_{2.5}$ Monitoring Data for the Coachella Valley**

| Monitoring Station | Year | Max Concentration (µg/$m^3$/24 hours) | No. Days Exceeding 24-hr. Federal[a] Standards | Annual Average (µg/$m^3$) AAM [b, c] |
|---|---|---|---|---|
| Palm Springs | 2010 | 12.8 | 0.0 | 5.9 |
| | 2011 | 26.3 | 0.0 | 6.0 |
| | 2012 | 15.5 | 0.0 | 6.4 |
| | 2013 | 18.5 | 0.0 | 6.5 |
| | 2014 | 15.5 | ** | ** |
| | 2015 | 22.7 | ** | ** |
| | 2016 | 14.7 | 0 | 5.4 |
| | 2017 | 14.5 | 0 | 6.0 |
| Indio | 2010 | 16.0 | 0.0 | 6.8 |
| | 2011 | 35.4 | 0.0 | 7.1 |
| | 2012 | 18.4 | 0.0 | 7.6 |
| | 2013 | 25.8 | 0.0 | 8.3 |
| | 2014 | 18.3 | ** | ** |
| | 2015 | 24.6 | ** | ** |
| | 2016 | 25.8 | 0 | 7.6 |
| | 2017 | 18.8 | ** | ** |

Source: Annual air quality site monitoring reports, ARB. http://www.arb.ca.gov/adam/,accessed November 2018.
a = > 35 µg/$m^3$ in 24 hour period, Federal standard as of December 17, 2006.
b Federal Annual Average Standard = AAM > 15µg/$m^3$
c State Annual Average Standard = AAM > 12µg/$m^3$ as of July 5, 2003.
** There was insufficient (or no) data available to determine the value.

Table 4 shows that the Palm Springs monitoring station exceeds the 8-hour federal and state ozone standards more frequently than the Indio site. This exceedance is attributable to the Palm Springs station's location closer to the San Gorgonio Pass where ozone is imported into the SSAB from air basins to the west.

**Table 4**
**Ozone Monitoring Data for the Coachella Valley**

| Monitoring Station | Year | Max. Concentration | | No. Days Standard Exceeded | | |
|---|---|---|---|---|---|---|
| | | | | Federal[1] | State[2] | |
| | | 1 Hour ppm | 8 Hour ppm | 8 Hour | 1 Hour | 8 Hour |
| Palm Springs | 2010 | 0.114 | 0.099 | 76 | 20 | 78 |
| | 2011 | 0.124 | 0.098 | 66 | 21 | 69 |
| | 2012 | 0.126 | 0.100 | 76 | 17 | 79 |
| | 2013 | 0.113 | 0.104 | 76 | 10 | 82 |
| | 2014 | 0.108 | 0.093 | 55 | 9 | 61 |
| | 2015 | 0.102 | 0.092 | 47 | 3 | 51 |
| | 2016 | 0.103 | 0.092 | 46 | 6 | 48 |
| | 2017 | 0.113 | 0.097 | 57 | 18 | 63 |
| Indio | 2010 | 0.100 | 0.087 | 45 | 6 | 45 |
| | 2011 | 0.099 | 0.090 | 40 | 3 | 42 |
| | 2012 | 0.102 | 0.089 | 43 | 2 | 45 |
| | 2013 | 0.105 | 0.087 | 35 | 2 | 38 |
| | 2014 | 0.095 | 0.091 | 24 | 2 | 30 |
| | 2015 | 0.093 | 0.085 | 11 | 0 | 12 |
| | 2016 | 0.099 | 0.089 | 27 | 3 | 29 |
| | 2017 | 0.107 | 0.093 | 44 | 8 | 47 |

Source: ARB Annual Air Quality Data Tables. http://www.arb.ca.gov/adam/, accessed November 2018.
1 = > 0.070 parts per million for the 8 hour standard.
2 = > 0.09 and 0.070 parts per million in 1 hour and 8 hour, respectively.

**Criteria Air Pollutants Summary**

Air quality in the Salton Sea Air Basin exceeds state and federal standards for fugitive dust ($PM_{10}$) and ozone ($O_3$). Ambient air quality in the SSAB, including the project site, does not exceed state and federal standards for carbon monoxide, nitrogen dioxides, sulfur dioxide, lead, sulfates, hydrogen sulfide, or Vinyl Chloride. The following table shows the basin's federal and state attainment status for criteria pollutants.

**Table 5**
**Salton Sea Air Basin Designation Status**

| Criteria Pollutants | Federal Designation | State Designation |
|---|---|---|
| Ozone – 8-hour standard | Nonattainment | Nonattainment |
| Carbon Monoxide | Attainment | Attainment |
| Nitrogen Dioxide | Attainment | Attainment |
| Sulfur Dioxide | Attainment | Attainment |
| $PM_{10}$ | Nonattainment | Nonattainment |
| $PM_{2.5}$ | Attainment | Attainment |
| Source: CARB Air Quality Planning Branch, June 2013. This information has been cross-checked with the U.S. EPA Green Book last updated December 2018, accessed January 2019. | | |

## E. Regional Criteria Pollutants of Concern

Local air quality conditions are determined by climate, geography, and regional activities, including grading, construction and vehicular traffic, as well as heating, cooling, and ventilation equipment. The criteria pollutants of concern in the project area and the Coachella Valley are ozone ($O_3$), and particulate matter ($PM_{10}$, and $PM_{2.5}$). These are further described below:

<u>$PM_{10}$ Emissions</u>
Historically, $PM_{10}$ levels in the Coachella Valley are elevated due to fugitive dust emissions from grading and construction activities, agricultural practices, and strong wind. The finer materials, including sand and silt, can be picked up and transported by the wind and are referred to as "blowsand". $PM_{10}$ particles associated with blowsand are of two types: (1) natural $PM_{10}$ produced by direct particle erosion and fragmentation, and (2) secondary $PM_{10}$ whereby sand deposited on roadways is further pulverized by motor vehicles and then re-suspended in the air by those vehicles. The project is located in a $PM_{10}$ non-attainment area for the state and federal $PM_{10}$ standard.

The Coachella Valley has become eligible for redesignation as attainment due to the annual average $PM_{10}$ concentrations meeting the revoked federal standard. On February 25, 2010 the California Air Resources Board approved the Coachella Valley $PM_{10}$ Redesignation Request and Maintenance Plan from serious non-attainment to attainment for the $PM_{10}$ National Ambient Air Quality Standard under CAA Section 107. As of March 2019 the Environmental Protection Agency has not re-designated the $PM_{10}$ classification for the Coachella Valley[4]. The Coachella Valley continues to exceed the state standard and is in a serious non-attainment area for $PM_{10}$.

[4] "EPA Green Book Designated Non-attainment Areas for All Criteria Pollutants," as of 10/1/15. Accessed 2.24.16.

SCAQMD employs measures to reduce particulate matter in the District, sets forth new measures that could further reduce particulate matter, and lists those new measures that need further evaluation prior to implementation. In addition, applicable state code and AQMD Rules, including Rule 403 (Fugitive Dust), enforce fugitive dust compliance for all activities within the SSAB.

Ozone Emissions

Under the Federal Clean Air Act, the Coachella Valley portion of the SSAB is classified as a "severe-15" $O_3$ non-attainment area for the 8-hour state standard, which means that the region must come into compliance with Federal ozone standards by December 31, 2027. With future emission controls, the Coachella Valley will achieve the 2008 8-hour federal $O_3$ standard by 2024.[5]

SCAQMD studies indicate that most $O_3$ is transported to the Salton Sea Air Basin from the upwind South Coast Air Basin (SCAB). It is difficult to quantify the amount of ozone contributed from SCAB; however, reduced $O_3$ concentration in the SSAB depends, in part, upon reduced ozone emissions in the South Coast Air Basin.

## F. Sensitive Receptors

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people, defined as sensitive receptors, include children, the elderly, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise.

## G. Climate Change and Greenhouse Gasses

Air pollution is a chemical, physical, or biological process that modifies the chemistry and other characteristics of the atmosphere. The primary contributor to air pollution is the burning of fossil fuels used in transportation, power and heat generation, and industrial processes. The byproducts from the combustion of fossil fuels can contain air polluting substances. These emissions are responsible for the poor air quality that is evident in industrial centers worldwide.

Some air polluting agents are also greenhouse gases (GHG), including carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), and fluorinated gases (hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride), which are released into the atmosphere through natural processes and human activities. GHGs are expressed in metric tons (MT) of CO2e (carbon dioxide equivalent). These gases are termed greenhouse gases due to their shared characteristic of trapping heat, and they are believed to be responsible for the global average increase in surface temperatures of 0.7-1.5 °F that were observed during the 20th century.[6] The quantity of greenhouse gases in the atmosphere has increased significantly over a relatively short period. More recently, the concentration of $CO_2$ in the atmosphere had increased by 42%, methane by 15%, and NOx by 9% from 1990 to 2010.[7]

Carbon dioxide is the primary greenhouse gas that has raised the most concern of atmospheric scientists due to current atmospheric levels, current and projected emission levels, and the highly correlated

5 "2016 Air Quality Management Plan," prepared by South Coast Air Quality Management District.

6 U.S. Environmental Protection Agency, State of Knowledge. 2017.

7 U.S. Environmental Protection Agency, Figure 1: Global Greenhouse Gas Emissions by Gas, 1990-2010, May 2014.

temperature regression curve that has been observed, predicting a future path of rising carbon dioxide levels. Currently (2019), carbon dioxide concentrations in the atmosphere exceed 400 ppm. Comparatively, prior to the Industrial Revolution, about 250 years ago, $CO_2$ levels were 278 ppm, and over the past 650,000 years carbon dioxide levels have fluctuated between 180 and 300 ppm, making present day atmospheric $CO_2$ levels substantially greater than at any point in the past 650,000 years.[8]

There is much debate over what the effects of climate change will be, but there is general consensus that emissions levels need to be reduced to minimize the effects these pollutants will have on future climate conditions.

**Climate Change Regulation**

California was the first state to establish regulations that require the reduction of GHG emissions from motor vehicles. On September 24, 2004, the California legislature adopted a bill that requires all motor vehicles of 2009 vintage or later to reduce their greenhouse gas emissions by about 30% by the year 2016. On June 1, 2005, Governor Arnold Schwarzenegger issued Executive Order S-3-05 which calls for reduction in GHG emissions to 1990 levels by 2020 and an 80 percent reduction below 1990 levels by 2050.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act, was adopted by the State legislature in 2006. It sets forth a program to achieve 1990 emission levels by 2020 and requires CARB to proclaim 1990 GHG emissions and develop a Scoping Plan that sets forth GHG reduction methods. CARB reported that 1990 GHG emissions totaled 427 million metric tons (MMT) in California; CARB adopted a GHG scoping plan on December 11, 2008. The Scoping Plan includes a cap and trade program, green building strategies, recycling and waste reduction, and Voluntary Early Actions and Reductions.

More recently, Executive Order B-30-15 was issued by Governor Brown on April 29, 2015, establishing a new California goal to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 and ensuring the State will continue its efforts to reduce carbon pollution. Most recently, this 40% target was codified through Senate Bill 32 (2016), which adds section 38566 to the Health and Safety Code and requires that CARB ensure statewide GHG emissions meet the 40% reduction target no later than December 31, 2030.

Senate Bill 375 (SB 375) was signed by the Governor in September 2008 and is intended to, at least in part, implement greenhouse gas reduction targets set forth in AB 32 by setting regional "caps" on the GHGs emitted by the transportation sector. The bill encourages regional land use planning to reduce vehicle miles traveled and requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plans. The applicable MPO for the Coachella Valley is the Southern California Association of Governments (SCAG), which adopted its most recent Regional Transportation Plan and SCS in April 2016. The current reduction targets from SCAG's RTP and SCS are a 9% reduction by 2020 and a 16% reduction by 2035, as compared to 2005 emissions levels.

8 "Working Group III Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report, Climate Change 2007: Mitigation of Climate Change," prepared by the Intergovernmental Panel on Climate Change, May 2007.

**Climate Action Plans**

The Proposed Project is located within unincorporated Riverside County. The County of Riverside currently has a Draft Climate Action Plan (CAP) undergoing public review and comment. The CAP established goals and policies that incorporate environmental responsibility into its daily management of residential, commercial and industrial growth, education, energy and water use, air quality, transportation, waste reduction, economic development and open space and natural habitats to further their commitment towards reducing GHG emissions.

Riverside County has set a goal in accordance with AB 32 to reduce emissions back to 1990 levels by the year 2020. This target was calculated as a 15% decrease from 2008 levels, as recommended in the AB 32 Scoping Plan. The estimated community-wide emissions for the year 2020, based on population and housing growth projections associated with the assumptions used in the proposed General Plan Update, are 12,129,497 MT CO2e. In order to reach the reduction target, Riverside County must offset this growth in emissions and reduce community-wide emissions to 5,960,998 MT CO2e by the year 2020.

In order to reach the reduction target, the County of Riverside would need to implement various state policies and the additional local reduction measures described in the County's proposed CAP. These measures encourage energy efficiency and renewable energy in buildings, transit oriented planning, water conservation and increase waste diversion.

**Greenhouse Gasses Analyzed**

For the purpose of this analysis the emission of the following greenhouse gases are evaluated: carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$) and carbon dioxide equivalent ($CO_2e$), which includes a combination of hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

***Carbon Dioxide ($CO_2$):*** is an odorless and colorless gas that is emitted from natural sources such as the decomposition of dead organic matter, respiration of bacteria, plants, animals and fungus, evaporation from oceans, and volcanic out gassing. Manmade sources of $CO_2$ include the combustion of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.

***Methane ($CH_4$):*** is released naturally as part of biological processes such as in low oxygen environments like swamplands, bogs, or in rice production (at the roots of the plants) and in cattle raising. Mining of coal, the combustion of fossil fuels and biomass burning also generate methane emissions. Methane is a more efficient absorber of radiation compared to $CO_2$, however its atmospheric concentration is less than carbon dioxide.

***Nitrous Oxide ($N_2O$):*** is more commonly known as laughing gas and is a colorless greenhouse gas that in small doses can cause dizziness, euphoria, and sometimes slight hallucinations.

***Chlorofluorocarbons (CFCs)***

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane ($C_2H_6$) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. It was used for refrigerants, aerosol propellants, and cleaning solvents. Due to the

discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

***Hydrofluorocarbons (HFCs)***

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 ($CHF_3$), HFC-134a ($CF_3CH_2F$), and HFC-152a ($CH_3CHF_2$). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

***Perfluorocarbons (PFCs)***

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane ($CF_4$) and hexafluoroethane ($C_2F_6$). Concentrations of $CF_4$ in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

***Sulfur Hexafluoride ($SF_6$)***

$SF_6$ is an inorganic, odorless, colorless, nontoxic, nonflammable gas. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

# SECTION III. PROPOSED PROJECT IMPACTS

Development of the San Antonio MHP Onsite Sewer, Water and Stormwater Improvement Project will result in the direct and indirect generation and emission of air pollutants during project construction and operation. Criteria air pollutant and greenhouse gas emissions from construction will be temporary; however, emissions from daily operation will be ongoing. The following discussion describes the major sources of air pollutants associated with the development of the Proposed Project, and emission projections for criteria pollutants and greenhouse gases.

## A. Construction Related Air Quality Emissions

To estimate the potential emissions of criteria pollutants associated with the Proposed Project, the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used. For purposes of air quality modeling and analysis, the subject project is assumed to be constructed 6-month period, beginning mid 2019 and ending late 2019. The project's total area of disturbance is approximately 32 acres. Project specific data provided by the project engineers indicate that there will be a net import of approximately 41,468 cubic yards of materials.

Short-term emissions of pollutants will occur during site preparation/grading, and trenching for pipelines. Sources of construction-related emissions include the operation of construction equipment, soils/materials imports, as well as vehicles transporting workers to and from the project site. Construction emissions were calculated based upon the daily use of various types of construction equipment to be used throughout the entire construction period. It should be noted that not all equipment will be used every day, and various construction activities generate different quantities of emissions.

CalEEMod output tables are provided in Appendix A. The Construction Emission summary below provides the projected maximum daily emissions for all construction activities. Construction-related air quality impacts are short-term and will occur only during the construction phase of the project.

**Table 6**
**Construction Emissions Summary**
**Maximum Daily Emissions**

**(lbs./day)**

| Maximum Emissions | CO | NOx | ROG | SOx | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| 2019 | 30.90 | 80.85 | 5.49 | 0.14 | 9.63 | 6.12 |
| SCAQMD Threshold | 550.0 | 100.0 | 75.0 | 150.0 | 150.0 | 55.0 |
| **Significant** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: CalEEMod Version 2016.3.2 (output tables provided in Appendix A).
Average of summer and winter emissions, unmitigated, with the exception of PM10 and PM2.5, which show emissions after adherence to required dust control measures.

As shown in the table above, construction-related activities for the project are projected to remain below established daily thresholds for all criteria pollutants. Construction $PM_{10}$ and $PM_{2.5}$ fugitive dust emissions are minimized through adherence to SCAQMD Rule 403, which requires the application of dust control plan and dust suppression techniques during all phases of construction. Therefore, project construction is not anticipated to violate State or Federal air quality standards or contribute to existing air quality violation in the air basin.

**Localized Construction-Related Significance Thresholds and Emissions**

The purpose of analyzing Localized Significance Thresholds (LST) is to determine whether or not a project may generate significant adverse localized air quality impacts in relation to the nearest exposed individual, or sensitive receptor. Air quality sensitive receptors include, but are not limited to, schools, churches, residences, hospitals, day care facilities, and elderly care facilities. Sensitive receptors in the project area include single- and multi-family residences, public parks, and the Palm Springs High School.

Use of LSTs by a local government is voluntary and are designed for projects that are less than or equal to 5-acres. The Proposed Project is comprised of 32 acres. Although the total project area is greater than 5-acres, the area of daily disturbance is expected to be limited to approximately 5-acres per day. As such, the 5-acre look up table is expected to be sufficient to screen for site specific, potential localized air quality impacts.

To determine if the Proposed Project has the potential to generate significant adverse localized air quality impacts, the 5-acre mass rate LST Look-Up Table for SRA 30 (Coachella Valley) was utilized. The nearest sensitive receptors to the subject property are the 13-unit Huerta mobile home park located within 25 meters immediately west of Lincoln Street. Therefore, LSTs are summarized in the table below for sensitive receptors located approximately 25 meters from the emission source. Construction emission estimates reflect all phases of construction including grading and excavation. In reality, construction phases will not occur concurrently, such as grading and paving, and daily emissions will likely be lower than those calculated. As shown in the table below, LST thresholds will not be exceeded during construction of the project.

**Table 7**
**Localized Significance Thresholds**
**25 Meters, 5 Acres**

**(lbs per day)**

| | **CO** | **$NO_x$** | ***$PM_{10}$** | ***$PM_{2.5}$** |
|---|---|---|---|---|
| Project Emissions | 30.90 | 80.85 | 9.63 | 6.12 |
| LST | 2,292 | 304 | 14 | 8 |
| **Exceed?** | **No** | **No** | **No** | **No** |

Source: CalEEMod Version 2013.2.2 (output tables provided in Appendix A); Table C-1: 2006-2008 Thresholds for Construction and Operation, South Coast Air Quality Management District, revised October 21, 2009.
Emissions shown are the maximum daily emission during all phases of construction.
* PM10 and PM2.5 emission show mitigated conditions, including reductions from mandatory dust control plans.

**Potential Odors**

The Proposed Project is not expected to generate objectionable odors during any of the phases of construction or at project buildout. The Proposed Project has the potential to result in short-term odors associated with vehicle exhaust, which is expected to be minimal. In addition, any such odors will be quickly dispersed below detectable thresholds as distance from the construction site increases. All sewer and water pipes will be located underground; therefore, the project will not expose the surrounding area to near- or long-term odors. Therefore, impacts from objectionable odors are expected to be less than significant.

### B. Operational Emissions

Air pollutant emissions from on-going facility operations are largely the consequence of three emission source categories: Energy, Mobile, and Area sources. Energy sources refer to direct and indirect use of fossil fuels for energy use, including natural gas and electricity usage in buildings, lighting for parking structures, ventilation, and operation of elevators. Mobile sources refer to emissions associated with motor vehicle trips generated by the Proposed Project. Area sources refer to consumable products such as landscaping, building maintenance and cleaning supplies, kitchen and restroom supplies, and periodic reapplication of architectural coatings.

Due to the nature of the project, no new operational sources of emissions will be generated at buildout. Therefore, impacts associated with operational emissions will be negligible.

### C. Greenhouse Gas Emissions

The Proposed Project will produce greenhouse gas (GHG) emissions during the construction of the sewer and water line infrastructure. The CalEEMod model was utilized to quantify air quality emission projections, which include GHG emissions. Determinations of significance for construction-related and operational greenhouse gas emissions were based on the comparison of project-generated emissions to applicable SCAQMD thresholds. The SCAQMD currently has one established GHG threshold of 10,000 metric tons per year of $CO2_e$ for operation of industrial facilities. SCAQMD does not have a threshold for construction GHG emissions.

On December 5, 2008, the SCAQMD formally adopted a greenhouse gas significance threshold of 10,000 MTCO2e/yr that only applies to stationary sources (industrial uses) where SCAQMD is the lead agency (SCAQMD Resolution No. 08-35). This threshold was adopted based upon an October 2008 staff report and draft interim guidance document[9] that also recommended a threshold for all projects using a tiered approach. It was recommended by SCAQMD staff that a project's greenhouse gas emissions would be considered significant if it could not comply with at least one of the following "tiered" tests:

**Tier 1:** Is there an applicable exemption?
**Tier 2:** Is the project compliant with a greenhouse gas reduction plan that is, at a minimum, consistent with the goals of AB 32?

[9] Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, prepared by SCAQMD, October 2008.

**Tier 3**: Is the project below an absolute threshold (10,000 MTCO2e/yr for industrial projects; 3,000 MTCO2e/yr for residential and commercial projects)?
**Tier 4:** Is the project below a (yet to be set) performance threshold?
**Tier 5:** Would the project achieve a screening level with off-site mitigation?

Because the project includes industrial-type sewer, water, and stormwater facilities, project-related operational greenhouse gas emissions were compared to the SCAQMD Tier 3 threshold of 10,000 metric tons per year of $CO2_e$. The significance of construction-related GHG impacts are also based on the SCAQMD threshold of 10,000 metric tons per year of CO2e, along with the project's consistency with adopted State and local GHG reduction measures. Further, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures would address construction GHG emissions as part of the operational GHG reduction targets.

All construction related GHG emissions will be temporary and will end once the project is completed. There will be no operational emissions associated with the sewer and water pipe lines. However, construction emissions were amortized over a 30-year period as shown in the table below.

**Table 8**
**Construction GHG Emissions Summary**
**(Metric Tons/Year)**

| | CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Construction Activities | 455.35 | 0.08 | 0.00 | 457.47 |
| Operation (Plus Construction Amortized 30-years) | 9.86 | 0.00 | 0.00 | 25.14 |
| **SCAQMD Threshold (per year)** | | | | **10,000** |
| **Significant Impact?** | | | | **No** |

CalEEMod model, version 2016.3.2 Values shown represent the total annual, unmitigated GHG emission projections for construction of the Proposed Project.

All components of construction, including equipment, fuels, materials, and management practices, would be subject to current and future SCAQMD rules and regulations related to greenhouse gases. Applicable SCAQMD rules include, but are not limited to, source specific standards that reduce the greenhouse gas content in engines and limit equipment idling durations. In addition, total project construction GHG emissions would be well below the adopted SCAQMD operational threshold of 10,000 metric tons of $CO_2e$ per year. Therefore, since construction-related and operational GHG emissions are below established SCAQMD thresholds, this GHG impact would be less than significant.

## D. Cumulative Impacts

**Air Quality Criteria Pollutants**

Cumulative air quality impacts were assessed on a regional scale given the dispersing nature of pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. The SSAB is designated as nonattainment under both the CAAQS and the NAAQS for ozone and $PM_{10}$. Emissions of CO, NOX and ROG that exceed the SCAQMD operational thresholds would contribute to the ozone nonattainment designation, while emissions of $PM_{10}$ that exceed the SCAQMD thresholds would contribute to the $PM_{10}$ nonattainment designation of the SSAB.

Construction and operational activities associated with development of the Proposed Project will not exceed SCAQMD daily thresholds for criteria pollutants. Emission of CO, NOx, ROG, and $PM_{10}$ during construction and operation of the project are unavoidable and will marginally contribute to regional ozone and $PM_{10}$ non-attainment designations. The following discussions address cumulative impacts related to ozone and $PM_{10}$.

The Coachella Valley is subject to the SCAQMD 2016 Air Quality Management Plan and the 2003 $PM_{10}$ Coachella Valley State Implementation Plan (CVSIP) to ensure levels of criteria pollutants are regulated and minimized to the best of the region's ability. The 2016 AQMP has set forth attainment deadlines and future emission level projections for criteria pollutants within the project area, which satisfy Section 15130(b)(1)(B) of the CEQA guidelines for analyzing cumulative impacts. These regional plans provide guidelines and rules for achieving state and federal air quality standards, which aim to reduce cumulative impacts, particularly through the enforcement of SCAQMD daily thresholds and implementation of time-sensitive reduction strategies to achieve attainment status.

Regulation of Ozone

As previously discussed, SCAQMD studies indicate that most ozone is transported to the Salton Sea Air Basin from the upwind sources in the South Coast Air Basin. The amount of ozone contributed from other air basins is difficult to quantify; however, improved air quality in the project area depends upon reduced ozone emissions in the South Coast Air Basin. Therefore, cumulative impacts to ozone are better managed on a multi-regional scale as opposed to single projects. The SCAQMD 2016 AQMP provide current and future measures to reduce both stationary and mobile source ozone emissions. Proposed measures to reduce ozone include emission reductions from coatings and solvents, RECLAIM facilities, early transitions to cleaner mobile technologies, and incentives to adopt net zero and near zero technologies.[10]

CalEEMod does not calculate ozone emissions directly and therefore emissions of ozone precursors (CO, NOx, and ROG) were evaluated to determine Project-related impacts to ozone. Ozone precursors are the primary pollutants involved in the chemical reaction process that forms ozone. The Proposed Project will not exceed thresholds for CO, NOx, or ROG during construction or operation.

Regulation of $PM_{10}$

Similar to ozone, $PM_{10}$ is regulated through the SCAQMD 2016 Air Quality Management Plan and 2003 $PM_{10}$ Coachella Valley State Implementation Plan (CVSIP). Additional $PM_{10}$ reduction measures include applicable state code and AQMD Rules, such as Rule 403 (Fugitive Dust), which enforces fugitive dust compliance for all activities within the SSAB. As shown in the analysis above, the Proposed Project will not exceed local daily thresholds for $PM_{10}$. Therefore, cumulative impacts to $PM_{10}$ are considered less than significant.

In conclusion, cumulative air quality impacts related to construction and operation of the Proposed Project are considered less than significant. Development and operation of the Proposed Project will not exceed air quality maximum daily thresholds for CO, NOx and $PM_{10}$, which are cumulative thresholds by their nature. In addition, the Proposed Project is consistent with regulation requirements of ozone and

[10] Final 2016 Air Quality Management Plan, South Coast Air Quality Management District, 2016.

$PM_{10}$ in the Salton Sea Air Basin. Therefore, impacts related to ozone and $PM_{10}$ emissions will be less than significant and will not result in a cumulatively considerable contribution to GHG emissions.

**Greenhouse Gas Emissions**

The geographic scope for the analysis of potential cumulative greenhouse gas impacts is the overall Salton Sea Air Basin region in which the facilities are being constructed and operated. However, some percentage of GHG emissions associated with the Proposed Project may also come from sources outside of the SSAB. Therefore, cumulative greenhouse gas impacts were assessed on a regional scale due to the dispersing nature of these pollutant emissions and aggregate impacts from surrounding jurisdictions and air management districts. Any new power generation or vehicle trips resulting in emissions of carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), and fluorinated gases (hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride), would unavoidably contribute, at some level, to greenhouse gas concentrations in the atmosphere.

Based on the above analysis, GHG emissions would not exceed the 10,000 metric tons per year threshold established by the South Coast Air Quality Management District. Therefore, the project's GHG emissions would not be cumulatively considerable.

## E. Conclusions

Development of the San Antonio MHP Onsite Sewer, Water, and Stormwater Improvement Project will not violate State or Federal air quality standards or substantially contribute to an existing air quality violation in the Salton Sea Air Basin. The Proposed Project does not conflict with or obstruct implementation of the SCAQMD air quality management plan or regional climate action plans. Nor does the project create objectionable odors affecting a substantial number of people. The project is not of local air quality concern and will not result in a CO or $PM_{10}$ hotspots.

The Proposed Project will adhere to all regulatory requirements set forth in Section IV to assure that air quality emissions generated by the subject undertaking are minimized.. As such, the Proposed Project would have a less than significant impact to air quality and greenhouse gas.

# SECTION IV. AIR QUALITY STANDARD REGULATIONS

The project will adhere to all established air quality standards and regulations including the following:

1. SCAQMD Rule 403 (403.1 specific to the Coachella Valley): A dust control Plan shall be prepared and implemented during all construction activities, include ground disturbance, grubbing, grading, and soil export. Said plan shall include but not be limited to the following best management practices:

    - Chemically treat soil where activity will cease for at least four consecutive days;
    - All construction grading operations and earth moving operations shall cease when winds exceed 25 miles per hour;
    - Water site and equipment morning and evening and during all earth-moving operations;
    - Operate street-sweepers on paved roads adjacent to site;
    - Establish and strictly enforce limits of grading for each phase of development; and/or
    - Stabilize and re-vegetate areas of temporary disturbance needed to accomplish each phase of development.
    - Wash off trucks as they leave the project site as necessary to control fugitive dust emissions.
    - Cover all transported loads of soils, wet materials prior to transport, provide adequate freeboard (space from the top of the material to the top of the truck) to reduce $PM_{10}$ and deposition of particulate matter during transportation.
    - Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.

2. SCAQMD Rule 402: The project shall adhere to nuisance odor requirement.

3. SCAQMD Rule 1113: The project shall use low VOC content architectural coatings and paints per the requirements of this Rule.

4. All construction equipment should be properly serviced and maintained in optimal operating condition.

5. Construction equipment should not be left idling for more than five minutes.

6. As feasible, construction waste should be recycling to reroute waste from landfills and minimize the project's contribution to the landfill.

7. The contractor shall notify the City of the start and end of grading and construction activities in conformance and within the time frames established in the 2003 $PM_{10}$ State Implementation Plan.

8. Construction staging and management plans shall be reviewed and conditioned to require the application of all reasonably available methods and technologies to assure the minimal emissions of

pollutants from the development. The City Engineer shall review grading plan applications to ensure compliance with the mitigation measures set forth in this document and as otherwise conditioned by the City.

9. Construction equipment and materials shall be sited as far away from residential and park uses as practicable.

## DOCUMENTS REFERENCED

1. "2016 Air Quality Management Plan," prepared by South Coast Air Quality Management District, 2016.

2. "CEQA Air Quality Handbook," prepared by South Coast Air Quality Management District, April 1993.

3. "Final Localized Significance Threshold Methodology, prepared by the South Coast Air Quality Management District, Revised, July 2008.

4. "South Coast Air Quality Management District Rules and Regulations," adopted February 4, 1977.

5. "Annual Air Quality Site Monitoring Reports," prepared by the South Coast Air Quality Management District.

6. "The California Almanac of Emissions and Air Quality, 2006 Edition," California Air Resources Board, Planning and Technical Support Division, March 2006.

7. "Climate Change 2007: The Physical Science Basis," Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, edited by S. Solomon, D. Qin, and M. Manning, April 2007.

8. "Working Group III Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report, Climate Change 2007: Mitigation of Climate Change," prepared by the Intergovernmental Panel on Climate Change, May 2007.

9. "2003 Coachella Valley PM10 State Implementation Plan," August 1, 2003.

# APPENDIX A

San Antonio MHP Onsite Sewer, Water, Stormwater Improvement Project
CalEEMod Outputs

CalEEMod Version 2016.2.2

# San Antonio MHP Sewer, Water, Stormwater

**Salton Sea Air Basin, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 1.30 | 1000sqft | 32.00 | 1,300.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 3.4 | **Precipitation Freq (Days)** | 20 |
| **Climate Zone** | 15 | | | **Operational Year** | 2020 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

San Antonio MHP Sewer, Water, Stormwater - Salton Sea Air Basin, Annual

Project Characteristics -

Land Use - Improvements to sewer, water, and stormwater faclities. Only built structure will be a 1,300SF accessory building for well site machinery.

Construction Phase - Assumes a 6-month buildout.

Off-road Equipment -

Off-road Equipment -

On-road Fugitive Dust - The site can be accessed via paved local roadways.

Grading - Import calculations per project grading plan (41,468 CY).

Vehicle Trips - No habitable building structures. The proposed structure is to house water well equipment.

Road Dust - All roads to the site are paved.

Water And Wastewater - The proposed ancillary building will house equipment and will not generate water or wastewater demands.

Solid Waste - The ancillary equipment building will not generate solid waste.

Construction Off-road Equipment Mitigation - Adhearnce to standard dust control measures per SCAQMD Rule 403.1.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 40 |
| tblConstructionPhase | NumDays | 35.00 | 8.00 |
| tblConstructionPhase | NumDays | 500.00 | 84.00 |
| tblConstructionPhase | NumDays | 45.00 | 50.00 |
| tblConstructionPhase | NumDays | 20.00 | 10.00 |
| tblGrading | AcresOfGrading | 125.00 | 32.00 |
| tblGrading | MaterialImported | 0.00 | 41,468.00 |
| tblLandUse | LotAcreage | 0.03 | 32.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |

| | | | |
|---|---|---|---|
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblRoadDust | RoadPercentPave | 50 | 100 |
| tblSolidWaste | SolidWasteGenerationRate | 1.61 | 0.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | ElectricityIntensityFactorForWastewaterTreatment | 1,911.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToDistribute | 1,272.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToSupply | 9,727.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToTreat | 111.00 | 0.00 |
| tblWater | IndoorWaterUseRate | 300,625.00 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2019 | 0.2688 | 3.1535 | 1.7899 | 4.9800e-003 | 0.3139 | 0.1286 | 0.4425 | 0.1491 | 0.1195 | 0.2686 | 0.0000 | 455.3588 | 455.3588 | 0.0845 | 0.0000 | 457.4712 |
| **Maximum** | **0.2688** | **3.1535** | **1.7899** | **4.9800e-003** | **0.3139** | **0.1286** | **0.4425** | **0.1491** | **0.1195** | **0.2686** | **0.0000** | **455.3588** | **455.3588** | **0.0845** | **0.0000** | **457.4712** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2019 | 0.2688 | 3.1535 | 1.7899 | 4.9800e-003 | 0.1541 | 0.1286 | 0.2827 | 0.0668 | 0.1195 | 0.1863 | 0.0000 | 455.3585 | 455.3585 | 0.0845 | 0.0000 | 457.4709 |
| **Maximum** | **0.2688** | **3.1535** | **1.7899** | **4.9800e-003** | **0.1541** | **0.1286** | **0.2827** | **0.0668** | **0.1195** | **0.1863** | **0.0000** | **455.3585** | **455.3585** | **0.0845** | **0.0000** | **457.4709** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **50.91** | **0.00** | **36.12** | **55.19** | **0.00** | **30.63** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

San Antonio MHP Sewer, Water, Stormwater - Salton Sea Air Basin, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 6-3-2019 | 9-2-2019 | 2.4502 | 2.4502 |
| 2 | 9-3-2019 | 9-30-2019 | 0.2345 | 0.2345 |
| | | Highest | 2.4502 | 2.4502 |

## 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 | 5.9800e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Energy | 2.3000e-004 | 2.0700e-003 | 1.7400e-003 | 1.0000e-005 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 9.8605 | 9.8605 | 2.2000e-004 | 8.0000e-005 | 9.8889 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.2100e-003** | **2.0700e-003** | **1.7500e-003** | **1.0000e-005** | **0.0000** | **1.6000e-004** | **1.6000e-004** | **0.0000** | **1.6000e-004** | **1.6000e-004** | **0.0000** | **9.8605** | **9.8605** | **2.2000e-004** | **8.0000e-005** | **9.8889** |

## 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 | 5.9800e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Energy | 2.3000e-004 | 2.0700e-003 | 1.7400e-003 | 1.0000e-005 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 9.8605 | 9.8605 | 2.2000e-004 | 8.0000e-005 | 9.8889 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.2100e-003** | **2.0700e-003** | **1.7500e-003** | **1.0000e-005** | **0.0000** | **1.6000e-004** | **1.6000e-004** | **0.0000** | **1.6000e-004** | **1.6000e-004** | **0.0000** | **9.8605** | **9.8605** | **2.2000e-004** | **8.0000e-005** | **9.8889** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

San Antonio MHP Sewer, Water, Stormwater - Salton Sea Air Basin, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Site Preparation | 6/1/2019 | 6/14/2019 | 5 | 10 | |
| 2 | Grading | Grading | 6/15/2019 | 8/23/2019 | 5 | 50 | |
| 3 | Building Construction | Building Construction | 8/24/2019 | 12/19/2019 | 5 | 84 | |
| 4 | Architectural Coating | Architectural Coating | 12/20/2019 | 12/31/2019 | 5 | 8 | |

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

**Acres of Grading (Grading Phase): 32**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,950; Non-Residential Outdoor: 650; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 5,184.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 1.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

## 3.2 Site Preparation - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0903 | 0.0000 | 0.0903 | 0.0497 | 0.0000 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0217 | 0.2279 | 0.1103 | 1.9000e-004 | | 0.0120 | 0.0120 | | 0.0110 | 0.0110 | 0.0000 | 17.0843 | 17.0843 | 5.4100e-003 | 0.0000 | 17.2195 |
| **Total** | **0.0217** | **0.2279** | **0.1103** | **1.9000e-004** | **0.0903** | **0.0120** | **0.1023** | **0.0497** | **0.0110** | **0.0607** | **0.0000** | **17.0843** | **17.0843** | **5.4100e-003** | **0.0000** | **17.2195** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 6.0000e-004 | 4.8000e-004 | 4.6900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8651 | 0.8651 | 4.0000e-005 | 0.0000 | 0.8660 |
| **Total** | **6.0000e-004** | **4.8000e-004** | **4.6900e-003** | **1.0000e-005** | **9.9000e-004** | **1.0000e-005** | **9.9000e-004** | **2.6000e-004** | **1.0000e-005** | **2.7000e-004** | **0.0000** | **0.8651** | **0.8651** | **4.0000e-005** | **0.0000** | **0.8660** |

## 3.2 Site Preparation - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0352 | 0.0000 | 0.0352 | 0.0194 | 0.0000 | 0.0194 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0217 | 0.2279 | 0.1103 | 1.9000e-004 | | 0.0120 | 0.0120 | | 0.0110 | 0.0110 | 0.0000 | 17.0843 | 17.0843 | 5.4100e-003 | 0.0000 | 17.2195 |
| **Total** | **0.0217** | **0.2279** | **0.1103** | **1.9000e-004** | **0.0352** | **0.0120** | **0.0472** | **0.0194** | **0.0110** | **0.0304** | **0.0000** | **17.0843** | **17.0843** | **5.4100e-003** | **0.0000** | **17.2195** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 6.0000e-004 | 4.8000e-004 | 4.6900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8651 | 0.8651 | 4.0000e-005 | 0.0000 | 0.8660 |
| **Total** | **6.0000e-004** | **4.8000e-004** | **4.6900e-003** | **1.0000e-005** | **9.9000e-004** | **1.0000e-005** | **9.9000e-004** | **2.6000e-004** | **1.0000e-005** | **2.7000e-004** | **0.0000** | **0.8651** | **0.8651** | **4.0000e-005** | **0.0000** | **0.8660** |

## 3.3 Grading - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1717 | 0.0000 | 0.1717 | 0.0852 | 0.0000 | 0.0852 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1185 | 1.3630 | 0.8344 | 1.5500e-003 | | 0.0596 | 0.0596 | | 0.0548 | 0.0548 | 0.0000 | 139.2533 | 139.2533 | 0.0441 | 0.0000 | 140.3548 |
| **Total** | **0.1185** | **1.3630** | **0.8344** | **1.5500e-003** | **0.1717** | **0.0596** | **0.2312** | **0.0852** | **0.0548** | **0.1400** | **0.0000** | **139.2533** | **139.2533** | **0.0441** | **0.0000** | **140.3548** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0152 | 0.6666 | 0.0840 | 2.0300e-003 | 0.0450 | 2.3200e-003 | 0.0473 | 0.0124 | 2.2200e-003 | 0.0146 | 0.0000 | 193.1815 | 193.1815 | 0.0106 | 0.0000 | 193.4469 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.3600e-003 | 2.6900e-003 | 0.0261 | 5.0000e-005 | 5.4800e-003 | 3.0000e-005 | 5.5200e-003 | 1.4600e-003 | 3.0000e-005 | 1.4900e-003 | 0.0000 | 4.8058 | 4.8058 | 2.2000e-004 | 0.0000 | 4.8112 |
| **Total** | **0.0185** | **0.6693** | **0.1100** | **2.0800e-003** | **0.0505** | **2.3500e-003** | **0.0528** | **0.0138** | **2.2500e-003** | **0.0161** | **0.0000** | **197.9873** | **197.9873** | **0.0108** | **0.0000** | **198.2582** |

## 3.3 Grading - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0669 | 0.0000 | 0.0669 | 0.0332 | 0.0000 | 0.0332 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1185 | 1.3630 | 0.8344 | 1.5500e-003 | | 0.0596 | 0.0596 | | 0.0548 | 0.0548 | 0.0000 | 139.2531 | 139.2531 | 0.0441 | 0.0000 | 140.3546 |
| **Total** | **0.1185** | **1.3630** | **0.8344** | **1.5500e-003** | **0.0669** | **0.0596** | **0.1265** | **0.0332** | **0.0548** | **0.0880** | **0.0000** | **139.2531** | **139.2531** | **0.0441** | **0.0000** | **140.3546** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0152 | 0.6666 | 0.0840 | 2.0300e-003 | 0.0450 | 2.3200e-003 | 0.0473 | 0.0124 | 2.2200e-003 | 0.0146 | 0.0000 | 193.1815 | 193.1815 | 0.0106 | 0.0000 | 193.4469 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.3600e-003 | 2.6900e-003 | 0.0261 | 5.0000e-005 | 5.4800e-003 | 3.0000e-005 | 5.5200e-003 | 1.4600e-003 | 3.0000e-005 | 1.4900e-003 | 0.0000 | 4.8058 | 4.8058 | 2.2000e-004 | 0.0000 | 4.8112 |
| **Total** | **0.0185** | **0.6693** | **0.1100** | **2.0800e-003** | **0.0505** | **2.3500e-003** | **0.0528** | **0.0138** | **2.2500e-003** | **0.0161** | **0.0000** | **197.9873** | **197.9873** | **0.0108** | **0.0000** | **198.2582** |

## 3.4 Building Construction - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0992 | 0.8853 | 0.7209 | 1.1300e-003 | | 0.0542 | 0.0542 | | 0.0509 | 0.0509 | 0.0000 | 98.7438 | 98.7438 | 0.0241 | 0.0000 | 99.3451 |
| **Total** | **0.0992** | **0.8853** | **0.7209** | **1.1300e-003** | | **0.0542** | **0.0542** | | **0.0509** | **0.0509** | **0.0000** | **98.7438** | **98.7438** | **0.0241** | **0.0000** | **99.3451** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 2.3000e-004 | 2.1900e-003 | 0.0000 | 4.6000e-004 | 0.0000 | 4.6000e-004 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.4037 | 0.4037 | 2.0000e-005 | 0.0000 | 0.4041 |
| **Total** | **2.8000e-004** | **2.3000e-004** | **2.1900e-003** | **0.0000** | **4.6000e-004** | **0.0000** | **4.6000e-004** | **1.2000e-004** | **0.0000** | **1.2000e-004** | **0.0000** | **0.4037** | **0.4037** | **2.0000e-005** | **0.0000** | **0.4041** |

## 3.4 Building Construction - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0992 | 0.8853 | 0.7209 | 1.1300e-003 | | 0.0542 | 0.0542 | | 0.0509 | 0.0509 | 0.0000 | 98.7437 | 98.7437 | 0.0241 | 0.0000 | 99.3450 |
| **Total** | **0.0992** | **0.8853** | **0.7209** | **1.1300e-003** | | **0.0542** | **0.0542** | | **0.0509** | **0.0509** | **0.0000** | **98.7437** | **98.7437** | **0.0241** | **0.0000** | **99.3450** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8000e-004 | 2.3000e-004 | 2.1900e-003 | 0.0000 | 4.6000e-004 | 0.0000 | 4.6000e-004 | 1.2000e-004 | 0.0000 | 1.2000e-004 | 0.0000 | 0.4037 | 0.4037 | 2.0000e-005 | 0.0000 | 0.4041 |
| **Total** | **2.8000e-004** | **2.3000e-004** | **2.1900e-003** | **0.0000** | **4.6000e-004** | **0.0000** | **4.6000e-004** | **1.2000e-004** | **0.0000** | **1.2000e-004** | **0.0000** | **0.4037** | **0.4037** | **2.0000e-005** | **0.0000** | **0.4041** |

## 3.5 Architectural Coating - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 9.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.0700e-003 | 7.3400e-003 | 7.3700e-003 | 1.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 1.0213 | 1.0213 | 9.0000e-005 | 0.0000 | 1.0235 |
| **Total** | **0.0101** | **7.3400e-003** | **7.3700e-003** | **1.0000e-005** | | **5.2000e-004** | **5.2000e-004** | | **5.2000e-004** | **5.2000e-004** | **0.0000** | **1.0213** | **1.0213** | **9.0000e-005** | **0.0000** | **1.0235** |

### Unmitigated Construction Off-Site

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

## 3.5 Architectural Coating - 2019

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 9.0400e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 1.0700e-003 | 7.3400e-003 | 7.3700e-003 | 1.0000e-005 | | 5.2000e-004 | 5.2000e-004 | | 5.2000e-004 | 5.2000e-004 | 0.0000 | 1.0213 | 1.0213 | 9.0000e-005 | 0.0000 | 1.0235 |
| **Total** | **0.0101** | **7.3400e-003** | **7.3700e-003** | **1.0000e-005** | | **5.2000e-004** | **5.2000e-004** | | **5.2000e-004** | **5.2000e-004** | **0.0000** | **1.0213** | **1.0213** | **9.0000e-005** | **0.0000** | **1.0235** |

**Mitigated Construction Off-Site**

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

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

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

## 4.2 Trip Summary Information

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

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Light Industry | 13.80 | 6.20 | 6.20 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Light Industry | 0.485214 | 0.037386 | 0.181758 | 0.128316 | 0.017019 | 0.005545 | 0.021824 | 0.110355 | 0.002799 | 0.001965 | 0.006105 | 0.000789 | 0.000923 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.6065 | 7.6065 | 1.7000e-004 | 4.0000e-005 | 7.6216 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 7.6065 | 7.6065 | 1.7000e-004 | 4.0000e-005 | 7.6216 |
| NaturalGas Mitigated | 2.3000e-004 | 2.0700e-003 | 1.7400e-003 | 1.0000e-005 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 2.2539 | 2.2539 | 4.0000e-005 | 4.0000e-005 | 2.2673 |
| NaturalGas Unmitigated | 2.3000e-004 | 2.0700e-003 | 1.7400e-003 | 1.0000e-005 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 2.2539 | 2.2539 | 4.0000e-005 | 4.0000e-005 | 2.2673 |

## 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 | 42237 | 2.3000e-004 | 2.0700e-003 | 1.7400e-003 | 1.0000e-005 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 2.2539 | 2.2539 | 4.0000e-005 | 4.0000e-005 | 2.2673 |
| **Total** | | **2.3000e-004** | **2.0700e-003** | **1.7400e-003** | **1.0000e-005** | | **1.6000e-004** | **1.6000e-004** | | **1.6000e-004** | **1.6000e-004** | **0.0000** | **2.2539** | **2.2539** | **4.0000e-005** | **4.0000e-005** | **2.2673** |

### 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 | 42237 | 2.3000e-004 | 2.0700e-003 | 1.7400e-003 | 1.0000e-005 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 2.2539 | 2.2539 | 4.0000e-005 | 4.0000e-005 | 2.2673 |
| **Total** | | **2.3000e-004** | **2.0700e-003** | **1.7400e-003** | **1.0000e-005** | | **1.6000e-004** | **1.6000e-004** | | **1.6000e-004** | **1.6000e-004** | **0.0000** | **2.2539** | **2.2539** | **4.0000e-005** | **4.0000e-005** | **2.2673** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 13195 | 7.6065 | 1.7000e-004 | 4.0000e-005 | 7.6216 |
| **Total** | | **7.6065** | **1.7000e-004** | **4.0000e-005** | **7.6216** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Light Industry | 13195 | 7.6065 | 1.7000e-004 | 4.0000e-005 | 7.6216 |
| **Total** | | **7.6065** | **1.7000e-004** | **4.0000e-005** | **7.6216** |

## 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 | 5.9800e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| Unmitigated | 5.9800e-003 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 9.0000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 5.0800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| **Total** | **5.9800e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0000** | **2.0000e-005** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 9.0000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 5.0800e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e-005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e-005 | 2.0000e-005 | 0.0000 | 0.0000 | 2.0000e-005 |
| **Total** | **5.9800e-003** | **0.0000** | **1.0000e-005** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.0000e-005** | **2.0000e-005** | **0.0000** | **0.0000** | **2.0000e-005** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

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

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Light Industry | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

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

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Light Industry | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

### Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

### User Defined Equipment

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# San Antonio MHP Sewer, Water, Stormwater

**Salton Sea Air Basin, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 1.30 | 1000sqft | 32.00 | 1,300.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 3.4 | **Precipitation Freq (Days)** | 20 |
| **Climate Zone** | 15 | | | **Operational Year** | 2020 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

San Antonio MHP Sewer, Water, Stormwater - Salton Sea Air Basin, Summer

Project Characteristics -

Land Use - Improvements to sewer, water, and stormwater faclities. Only built structure will be a 1,300SF accessory building for well site machinery.

Construction Phase - Assumes a 6-month buildout.

Off-road Equipment -

Off-road Equipment -

On-road Fugitive Dust - The site can be accessed via paved local roadways.

Grading - Import calculations per project grading plan (41,468 CY).

Vehicle Trips - No habitable building structures. The proposed structure is to house water well equipment.

Road Dust - All roads to the site are paved.

Water And Wastewater - The proposed ancillary building will house equipment and will not generate water or wastewater demands.

Solid Waste - The ancillary equipment building will not generate solid waste.

Construction Off-road Equipment Mitigation - Adhearnce to standard dust control measures per SCAQMD Rule 403.1.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 40 |
| tblConstructionPhase | NumDays | 35.00 | 8.00 |
| tblConstructionPhase | NumDays | 500.00 | 84.00 |
| tblConstructionPhase | NumDays | 45.00 | 50.00 |
| tblConstructionPhase | NumDays | 20.00 | 10.00 |
| tblGrading | AcresOfGrading | 125.00 | 32.00 |
| tblGrading | MaterialImported | 0.00 | 41,468.00 |
| tblLandUse | LotAcreage | 0.03 | 32.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |

| | | | |
|---|---|---|---|
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblRoadDust | RoadPercentPave | 50 | 100 |
| tblSolidWaste | SolidWasteGenerationRate | 1.61 | 0.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | ElectricityIntensityFactorForWastewaterTreatment | 1,911.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToDistribute | 1,272.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToSupply | 9,727.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToTreat | 111.00 | 0.00 |
| tblWater | IndoorWaterUseRate | 300,625.00 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2019 | 5.4884 | 80.5727 | 37.7765 | 0.1464 | 18.2661 | 2.4761 | 20.6577 | 9.9837 | 2.2814 | 12.1840 | 0.0000 | 14,998.7529 | 14,998.7529 | 2.4002 | 0.0000 | 15,058.7571 |
| **Maximum** | **5.4884** | **80.5727** | **37.7765** | **0.1464** | **18.2661** | **2.4761** | **20.6577** | **9.9837** | **2.2814** | **12.1840** | **0.0000** | **14,998.7529** | **14,998.7529** | **2.4002** | **0.0000** | **15,058.7571** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2019 | 5.4884 | 80.5727 | 37.7765 | 0.1464 | 7.2457 | 2.4761 | 9.6373 | 3.9260 | 2.2814 | 6.1263 | 0.0000 | 14,998.7529 | 14,998.7529 | 2.4002 | 0.0000 | 15,058.7571 |
| **Maximum** | **5.4884** | **80.5727** | **37.7765** | **0.1464** | **7.2457** | **2.4761** | **9.6373** | **3.9260** | **2.2814** | **6.1263** | **0.0000** | **14,998.7529** | **14,998.7529** | **2.4002** | **0.0000** | **15,058.7571** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **60.33** | **0.00** | **53.35** | **60.68** | **0.00** | **49.72** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| Energy | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0340** | **0.0113** | **9.6600e-003** | **7.0000e-005** | **0.0000** | **8.6000e-004** | **8.6000e-004** | **0.0000** | **8.6000e-004** | **8.6000e-004** | | **13.6141** | **13.6141** | **2.6000e-004** | **2.5000e-004** | **13.6951** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| Energy | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0340** | **0.0113** | **9.6600e-003** | **7.0000e-005** | **0.0000** | **8.6000e-004** | **8.6000e-004** | **0.0000** | **8.6000e-004** | **8.6000e-004** | | **13.6141** | **13.6141** | **2.6000e-004** | **2.5000e-004** | **13.6951** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Site Preparation | 6/1/2019 | 6/14/2019 | 5 | 10 | |
| 2 | Grading | Grading | 6/15/2019 | 8/23/2019 | 5 | 50 | |
| 3 | Building Construction | Building Construction | 8/24/2019 | 12/19/2019 | 5 | 84 | |
| 4 | Architectural Coating | Architectural Coating | 12/20/2019 | 12/31/2019 | 5 | 8 | |

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

**Acres of Grading (Grading Phase): 32**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,950; Non-Residential Outdoor: 650; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 5,184.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 1.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

## 3.2 Site Preparation - 2019

### Unmitigated Construction On-Site

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

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1419 | 0.0955 | 1.1815 | 2.1300e-003 | 0.1998 | 1.2500e-003 | 0.2011 | 0.0530 | 1.1600e-003 | 0.0542 | | 210.9940 | 210.9940 | 0.0101 | | 211.2461 |
| **Total** | **0.1419** | **0.0955** | **1.1815** | **2.1300e-003** | **0.1998** | **1.2500e-003** | **0.2011** | **0.0530** | **1.1600e-003** | **0.0542** | | **210.9940** | **210.9940** | **0.0101** | | **211.2461** |

## 3.2 Site Preparation - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 7.0458 | 0.0000 | 7.0458 | 3.8730 | 0.0000 | 3.8730 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.3350 | 45.5727 | 22.0630 | 0.0380 | | 2.3904 | 2.3904 | | 2.1991 | 2.1991 | 0.0000 | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |
| **Total** | **4.3350** | **45.5727** | **22.0630** | **0.0380** | **7.0458** | **2.3904** | **9.4362** | **3.8730** | **2.1991** | **6.0721** | **0.0000** | **3,766.4529** | **3,766.4529** | **1.1917** | | **3,796.2445** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1419 | 0.0955 | 1.1815 | 2.1300e-003 | 0.1998 | 1.2500e-003 | 0.2011 | 0.0530 | 1.1600e-003 | 0.0542 | | 210.9940 | 210.9940 | 0.0101 | | 211.2461 |
| **Total** | **0.1419** | **0.0955** | **1.1815** | **2.1300e-003** | **0.1998** | **1.2500e-003** | **0.2011** | **0.0530** | **1.1600e-003** | **0.0542** | | **210.9940** | **210.9940** | **0.0101** | | **211.2461** |

## 3.3 Grading - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.8660 | 0.0000 | 6.8660 | 3.4085 | 0.0000 | 3.4085 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| **Total** | **4.7389** | **54.5202** | **33.3768** | **0.0620** | **6.8660** | **2.3827** | **9.2486** | **3.4085** | **2.1920** | **5.6006** | | **6,140.0195** | **6,140.0195** | **1.9426** | | **6,188.5854** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.5918 | 25.9465 | 3.0869 | 0.0821 | 1.8175 | 0.0921 | 1.9096 | 0.4986 | 0.0881 | 0.5867 | | 8,624.2956 | 8,624.2956 | 0.4463 | | 8,635.4539 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1577 | 0.1061 | 1.3128 | 2.3600e-003 | 0.2220 | 1.3900e-003 | 0.2234 | 0.0589 | 1.2800e-003 | 0.0602 | | 234.4378 | 234.4378 | 0.0112 | | 234.7179 |
| **Total** | **0.7495** | **26.0525** | **4.3997** | **0.0844** | **2.0396** | **0.0935** | **2.1330** | **0.5575** | **0.0894** | **0.6469** | | **8,858.7334** | **8,858.7334** | **0.4575** | | **8,870.1717** |

## 3.3 Grading - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 2.6777 | 0.0000 | 2.6777 | 1.3293 | 0.0000 | 1.3293 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | 0.0000 | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| **Total** | **4.7389** | **54.5202** | **33.3768** | **0.0620** | **2.6777** | **2.3827** | **5.0604** | **1.3293** | **2.1920** | **3.5214** | **0.0000** | **6,140.0195** | **6,140.0195** | **1.9426** | | **6,188.5854** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.5918 | 25.9465 | 3.0869 | 0.0821 | 1.8175 | 0.0921 | 1.9096 | 0.4986 | 0.0881 | 0.5867 | | 8,624.2956 | 8,624.2956 | 0.4463 | | 8,635.4539 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1577 | 0.1061 | 1.3128 | 2.3600e-003 | 0.2220 | 1.3900e-003 | 0.2234 | 0.0589 | 1.2800e-003 | 0.0602 | | 234.4378 | 234.4378 | 0.0112 | | 234.7179 |
| **Total** | **0.7495** | **26.0525** | **4.3997** | **0.0844** | **2.0396** | **0.0935** | **2.1330** | **0.5575** | **0.0894** | **0.6469** | | **8,858.7334** | **8,858.7334** | **0.4575** | | **8,870.1717** |

## 3.4 Building Construction - 2019

### Unmitigated Construction On-Site

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

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 7.8800e-003 | 5.3000e-003 | 0.0656 | 1.2000e-004 | 0.0111 | 7.0000e-005 | 0.0112 | 2.9400e-003 | 6.0000e-005 | 3.0100e-003 | | 11.7219 | 11.7219 | 5.6000e-004 | | 11.7359 |
| **Total** | **7.8800e-003** | **5.3000e-003** | **0.0656** | **1.2000e-004** | **0.0111** | **7.0000e-005** | **0.0112** | **2.9400e-003** | **6.0000e-005** | **3.0100e-003** | | **11.7219** | **11.7219** | **5.6000e-004** | | **11.7359** |

## 3.4 Building Construction - 2019

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 7.8800e-003 | 5.3000e-003 | 0.0656 | 1.2000e-004 | 0.0111 | 7.0000e-005 | 0.0112 | 2.9400e-003 | 6.0000e-005 | 3.0100e-003 | | 11.7219 | 11.7219 | 5.6000e-004 | | 11.7359 |
| **Total** | **7.8800e-003** | **5.3000e-003** | **0.0656** | **1.2000e-004** | **0.0111** | **7.0000e-005** | **0.0112** | **2.9400e-003** | **6.0000e-005** | **3.0100e-003** | | **11.7219** | **11.7219** | **5.6000e-004** | | **11.7359** |

## 3.5 Architectural Coating - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 2.2596 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **2.5260** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

### Unmitigated Construction Off-Site

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

## 3.5 Architectural Coating - 2019

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 2.2596 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | 0.0000 | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **2.5260** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | **0.0000** | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

**Mitigated Construction Off-Site**

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

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

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

## 4.2 Trip Summary Information

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

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Light Industry | 13.80 | 6.20 | 6.20 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Light Industry | 0.485214 | 0.037386 | 0.181758 | 0.128316 | 0.017019 | 0.005545 | 0.021824 | 0.110355 | 0.002799 | 0.001965 | 0.006105 | 0.000789 | 0.000923 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| NaturalGas Unmitigated | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 115.718 | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| **Total** | | **1.2500e-003** | **0.0113** | **9.5300e-003** | **7.0000e-005** | | **8.6000e-004** | **8.6000e-004** | | **8.6000e-004** | **8.6000e-004** | | **13.6139** | **13.6139** | **2.6000e-004** | **2.5000e-004** | **13.6948** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 0.115718 | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| **Total** | | **1.2500e-003** | **0.0113** | **9.5300e-003** | **7.0000e-005** | | **8.6000e-004** | **8.6000e-004** | | **8.6000e-004** | **8.6000e-004** | | **13.6139** | **13.6139** | **2.6000e-004** | **2.5000e-004** | **13.6948** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| Unmitigated | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 4.9500e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0278 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| **Total** | **0.0328** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **3.0000e-004** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 4.9500e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0278 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| **Total** | **0.0328** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **3.0000e-004** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# San Antonio MHP Sewer, Water, Stormwater

**Salton Sea Air Basin, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Light Industry | 1.30 | 1000sqft | 32.00 | 1,300.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 3.4 | **Precipitation Freq (Days)** | 20 |
| **Climate Zone** | 15 | | | **Operational Year** | 2020 |
| **Utility Company** | Imperial Irrigation District | | | | |
| **CO2 Intensity (lb/MWhr)** | 1270.9 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

San Antonio MHP Sewer, Water, Stormwater - Salton Sea Air Basin, Winter

Project Characteristics -

Land Use - Improvements to sewer, water, and stormwater faclities. Only built structure will be a 1,300SF accessory building for well site machinery.

Construction Phase - Assumes a 6-month buildout.

Off-road Equipment -

Off-road Equipment -

On-road Fugitive Dust - The site can be accessed via paved local roadways.

Grading - Import calculations per project grading plan (41,468 CY).

Vehicle Trips - No habitable building structures. The proposed structure is to house water well equipment.

Road Dust - All roads to the site are paved.

Water And Wastewater - The proposed ancillary building will house equipment and will not generate water or wastewater demands.

Solid Waste - The ancillary equipment building will not generate solid waste.

Construction Off-road Equipment Mitigation - Adhearnce to standard dust control measures per SCAQMD Rule 403.1.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstDustMitigation | WaterUnpavedRoadMoistureContent | 0 | 0.5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 40 |
| tblConstructionPhase | NumDays | 35.00 | 8.00 |
| tblConstructionPhase | NumDays | 500.00 | 84.00 |
| tblConstructionPhase | NumDays | 45.00 | 50.00 |
| tblConstructionPhase | NumDays | 20.00 | 10.00 |
| tblGrading | AcresOfGrading | 125.00 | 32.00 |
| tblGrading | MaterialImported | 0.00 | 41,468.00 |
| tblLandUse | LotAcreage | 0.03 | 32.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | HaulingPercentPave | 50.00 | 100.00 |

| | | | |
|---|---|---|---|
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | VendorPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblOnRoadDust | WorkerPercentPave | 50.00 | 100.00 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
| tblRoadDust | RoadPercentPave | 50 | 100 |
| tblSolidWaste | SolidWasteGenerationRate | 1.61 | 0.00 |
| tblVehicleTrips | ST_TR | 1.32 | 0.00 |
| tblVehicleTrips | SU_TR | 0.68 | 0.00 |
| tblVehicleTrips | WD_TR | 6.97 | 0.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | ElectricityIntensityFactorForWastewaterTreatment | 1,911.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToDistribute | 1,272.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToSupply | 9,727.00 | 0.00 |
| tblWater | ElectricityIntensityFactorToTreat | 111.00 | 0.00 |
| tblWater | IndoorWaterUseRate | 300,625.00 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2019 | 5.5001 | 81.1390 | 38.0459 | 0.1436 | 18.2661 | 2.4781 | 20.6577 | 9.9837 | 2.2833 | 12.1840 | 0.0000 | 14,707.6948 | 14,707.6948 | 2.4504 | 0.0000 | 14,768.9555 |
| **Maximum** | **5.5001** | **81.1390** | **38.0459** | **0.1436** | **18.2661** | **2.4781** | **20.6577** | **9.9837** | **2.2833** | **12.1840** | **0.0000** | **14,707.6948** | **14,707.6948** | **2.4504** | **0.0000** | **14,768.9555** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2019 | 5.5001 | 81.1390 | 38.0459 | 0.1436 | 7.2457 | 2.4781 | 9.6373 | 3.9260 | 2.2833 | 6.1263 | 0.0000 | 14,707.6948 | 14,707.6948 | 2.4504 | 0.0000 | 14,768.9555 |
| **Maximum** | **5.5001** | **81.1390** | **38.0459** | **0.1436** | **7.2457** | **2.4781** | **9.6373** | **3.9260** | **2.2833** | **6.1263** | **0.0000** | **14,707.6948** | **14,707.6948** | **2.4504** | **0.0000** | **14,768.9555** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **60.33** | **0.00** | **53.35** | **60.68** | **0.00** | **49.72** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| Energy | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0340** | **0.0113** | **9.6600e-003** | **7.0000e-005** | **0.0000** | **8.6000e-004** | **8.6000e-004** | **0.0000** | **8.6000e-004** | **8.6000e-004** | | **13.6141** | **13.6141** | **2.6000e-004** | **2.5000e-004** | **13.6951** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| Energy | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| **Total** | **0.0340** | **0.0113** | **9.6600e-003** | **7.0000e-005** | **0.0000** | **8.6000e-004** | **8.6000e-004** | **0.0000** | **8.6000e-004** | **8.6000e-004** | | **13.6141** | **13.6141** | **2.6000e-004** | **2.5000e-004** | **13.6951** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Site Preparation | Site Preparation | 6/1/2019 | 6/14/2019 | 5 | 10 | |
| 2 | Grading | Grading | 6/15/2019 | 8/23/2019 | 5 | 50 | |
| 3 | Building Construction | Building Construction | 8/24/2019 | 12/19/2019 | 5 | 84 | |
| 4 | Architectural Coating | Architectural Coating | 12/20/2019 | 12/31/2019 | 5 | 8 | |

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

**Acres of Grading (Grading Phase): 32**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,950; Non-Residential Outdoor: 650; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 5,184.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 1.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 0.00 | 0.00 | 0.00 | 14.60 | 6.20 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

## 3.2 Site Preparation - 2019

### Unmitigated Construction On-Site

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

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1205 | 0.0986 | 0.8309 | 1.7800e-003 | 0.1998 | 1.2500e-003 | 0.2011 | 0.0530 | 1.1600e-003 | 0.0542 | | 177.1459 | 177.1459 | 7.8700e-003 | | 177.3428 |
| **Total** | **0.1205** | **0.0986** | **0.8309** | **1.7800e-003** | **0.1998** | **1.2500e-003** | **0.2011** | **0.0530** | **1.1600e-003** | **0.0542** | | **177.1459** | **177.1459** | **7.8700e-003** | | **177.3428** |

## 3.2 Site Preparation - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 7.0458 | 0.0000 | 7.0458 | 3.8730 | 0.0000 | 3.8730 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.3350 | 45.5727 | 22.0630 | 0.0380 | | 2.3904 | 2.3904 | | 2.1991 | 2.1991 | 0.0000 | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |
| **Total** | **4.3350** | **45.5727** | **22.0630** | **0.0380** | **7.0458** | **2.3904** | **9.4362** | **3.8730** | **2.1991** | **6.0721** | **0.0000** | **3,766.4529** | **3,766.4529** | **1.1917** | | **3,796.2445** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1205 | 0.0986 | 0.8309 | 1.7800e-003 | 0.1998 | 1.2500e-003 | 0.2011 | 0.0530 | 1.1600e-003 | 0.0542 | | 177.1459 | 177.1459 | 7.8700e-003 | | 177.3428 |
| **Total** | **0.1205** | **0.0986** | **0.8309** | **1.7800e-003** | **0.1998** | **1.2500e-003** | **0.2011** | **0.0530** | **1.1600e-003** | **0.0542** | | **177.1459** | **177.1459** | **7.8700e-003** | | **177.3428** |

## 3.3 Grading - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 6.8660 | 0.0000 | 6.8660 | 3.4085 | 0.0000 | 3.4085 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| **Total** | **4.7389** | **54.5202** | **33.3768** | **0.0620** | **6.8660** | **2.3827** | **9.2486** | **3.4085** | **2.1920** | **5.6006** | | **6,140.0195** | **6,140.0195** | **1.9426** | | **6,188.5854** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.6273 | 26.5092 | 3.7458 | 0.0797 | 1.8175 | 0.0940 | 1.9115 | 0.4986 | 0.0900 | 0.5885 | | 8,370.8465 | 8,370.8465 | 0.4990 | | 8,383.3226 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1339 | 0.1096 | 0.9233 | 1.9800e-003 | 0.2220 | 1.3900e-003 | 0.2234 | 0.0589 | 1.2800e-003 | 0.0602 | | 196.8288 | 196.8288 | 8.7500e-003 | | 197.0475 |
| **Total** | **0.7612** | **26.6188** | **4.6691** | **0.0816** | **2.0396** | **0.0954** | **2.1350** | **0.5575** | **0.0912** | **0.6487** | | **8,567.6754** | **8,567.6754** | **0.5078** | | **8,580.3701** |

## 3.3 Grading - 2019

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 2.6777 | 0.0000 | 2.6777 | 1.3293 | 0.0000 | 1.3293 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | 0.0000 | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| **Total** | **4.7389** | **54.5202** | **33.3768** | **0.0620** | **2.6777** | **2.3827** | **5.0604** | **1.3293** | **2.1920** | **3.5214** | **0.0000** | **6,140.0195** | **6,140.0195** | **1.9426** | | **6,188.5854** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.6273 | 26.5092 | 3.7458 | 0.0797 | 1.8175 | 0.0940 | 1.9115 | 0.4986 | 0.0900 | 0.5885 | | 8,370.8465 | 8,370.8465 | 0.4990 | | 8,383.3226 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1339 | 0.1096 | 0.9233 | 1.9800e-003 | 0.2220 | 1.3900e-003 | 0.2234 | 0.0589 | 1.2800e-003 | 0.0602 | | 196.8288 | 196.8288 | 8.7500e-003 | | 197.0475 |
| **Total** | **0.7612** | **26.6188** | **4.6691** | **0.0816** | **2.0396** | **0.0954** | **2.1350** | **0.5575** | **0.0912** | **0.6487** | | **8,567.6754** | **8,567.6754** | **0.5078** | | **8,580.3701** |

## 3.4 Building Construction - 2019

### Unmitigated Construction On-Site

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

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 6.7000e-003 | 5.4800e-003 | 0.0462 | 1.0000e-004 | 0.0111 | 7.0000e-005 | 0.0112 | 2.9400e-003 | 6.0000e-005 | 3.0100e-003 | | 9.8414 | 9.8414 | 4.4000e-004 | | 9.8524 |
| **Total** | **6.7000e-003** | **5.4800e-003** | **0.0462** | **1.0000e-004** | **0.0111** | **7.0000e-005** | **0.0112** | **2.9400e-003** | **6.0000e-005** | **3.0100e-003** | | **9.8414** | **9.8414** | **4.4000e-004** | | **9.8524** |

## 3.4 Building Construction - 2019

### Mitigated Construction On-Site

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

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 6.7000e-003 | 5.4800e-003 | 0.0462 | 1.0000e-004 | 0.0111 | 7.0000e-005 | 0.0112 | 2.9400e-003 | 6.0000e-005 | 3.0100e-003 | | 9.8414 | 9.8414 | 4.4000e-004 | | 9.8524 |
| **Total** | **6.7000e-003** | **5.4800e-003** | **0.0462** | **1.0000e-004** | **0.0111** | **7.0000e-005** | **0.0112** | **2.9400e-003** | **6.0000e-005** | **3.0100e-003** | | **9.8414** | **9.8414** | **4.4000e-004** | | **9.8524** |

## 3.5 Architectural Coating - 2019

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 2.2596 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **2.5260** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

### Unmitigated Construction Off-Site

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

## 3.5 Architectural Coating - 2019

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 2.2596 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2664 | 1.8354 | 1.8413 | 2.9700e-003 | | 0.1288 | 0.1288 | | 0.1288 | 0.1288 | 0.0000 | 281.4481 | 281.4481 | 0.0238 | | 282.0423 |
| **Total** | **2.5260** | **1.8354** | **1.8413** | **2.9700e-003** | | **0.1288** | **0.1288** | | **0.1288** | **0.1288** | **0.0000** | **281.4481** | **281.4481** | **0.0238** | | **282.0423** |

**Mitigated Construction Off-Site**

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

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

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

## 4.2 Trip Summary Information

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

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Light Industry | 13.80 | 6.20 | 6.20 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Light Industry | 0.485214 | 0.037386 | 0.181758 | 0.128316 | 0.017019 | 0.005545 | 0.021824 | 0.110355 | 0.002799 | 0.001965 | 0.006105 | 0.000789 | 0.000923 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| NaturalGas Unmitigated | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 115.718 | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| **Total** | | **1.2500e-003** | **0.0113** | **9.5300e-003** | **7.0000e-005** | | **8.6000e-004** | **8.6000e-004** | | **8.6000e-004** | **8.6000e-004** | | **13.6139** | **13.6139** | **2.6000e-004** | **2.5000e-004** | **13.6948** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Light Industry | 0.115718 | 1.2500e-003 | 0.0113 | 9.5300e-003 | 7.0000e-005 | | 8.6000e-004 | 8.6000e-004 | | 8.6000e-004 | 8.6000e-004 | | 13.6139 | 13.6139 | 2.6000e-004 | 2.5000e-004 | 13.6948 |
| **Total** | | **1.2500e-003** | **0.0113** | **9.5300e-003** | **7.0000e-005** | | **8.6000e-004** | **8.6000e-004** | | **8.6000e-004** | **8.6000e-004** | | **13.6139** | **13.6139** | **2.6000e-004** | **2.5000e-004** | **13.6948** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| Unmitigated | 0.0328 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 4.9500e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0278 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| **Total** | **0.0328** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **3.0000e-004** |

### 6.2 Area by SubCategory

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 4.9500e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0278 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | | 3.0000e-004 |
| **Total** | **0.0328** | **0.0000** | **1.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | | **2.8000e-004** | **2.8000e-004** | **0.0000** | | **3.0000e-004** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation