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SAN LUIS OBISPO

MEMORANDUM

DATE: December 2, 2021

TO: John Powers, PMP, Project Manager III, North Region Landfills
Aimee Halligan, Senior Environmental Resources Specialist
Orange County Waste & Recycling

FROM: Nicole Dubois, Principal
Cara Carlucci, Senior Planner

SUBJECT: Air Quality, Energy, and Greenhouse Gas Emissions Memorandum for the Valencia Greenery Project

This air quality, energy, and greenhouse gas (GHG) analysis has been prepared to evaluate the potential air quality, energy, and GHG impacts and prescribe mitigation measures, as appropriate, for the proposed Valencia Greenery Project (project) at the Olinda Alpha Landfill in Orange County, California. This impact analysis follows the guidelines identified by the South Coast Air Quality Management District (SCAQMD) in its *California Environmental Quality Act (CEQA) Air Quality Handbook* (1993) and associated updates. This memorandum provides a project-specific air quality, energy, and GHG impact analysis by examining the impacts of the proposed uses on adjacent sensitive uses as well as the impacts of the proposed uses on the project site.

PROJECT DESCRIPTION

Orange County Waste & Recycling (OCWR) is proposing a green waste composting operation at the Olinda Alpha Landfill (Landfill). The implementation of the proposed project would allow OCWR to compost a maximum of 230 tons per day (TPD) of processed green material (PGM) at the Landfill, thereby assisting the State, Orange County cities, and unincorporated County areas in meeting Senate Bill (SB) 1383 and Assembly Bill (AB) 1594 requirements for organic waste recycling. The proposed project would be developed on an approximately 9-acre pad located at the northeastern portion of the Landfill in an area that is not currently being used for active landfilling. A crushed asphalt base would be placed over the entire area that would be used for PGM storage and for composting operations. The proposed project also includes a dirt perimeter road for access, installation and operation of solar panels, and a lined 8.9 acre foot storm water basin; the appurtenant project features would be located on approximately 6 acres. Figure 1, below, shows the project location.

The proposed project would be developed in two phases. Phase I would include the construction of the civil components of the facility, including the construction of a composting deck, a lined stormwater pond, a fire water supply system, and expansion of the existing operation's water tanks to provide water for the composting operation. During Phase I, open windrow composting would be utilized. Open windrow composting involves placing green waste in long rows called windrows. The

windrows are turned (using a compost windrow turner or front-end loader) to improve porosity and oxygen content, mix in or remove moisture, and redistribute cooler and hotter portions of the pile.

Phase I is a temporary condition and anticipated to last for the first 5 to 6 months of project operation. Phase II of construction would include installation and construction of equipment, piping, and solar panels that constitute the Covered Aerated Static Pile (CASP) composting system. The CASP system consists of an automated system that blows air into the compost, which is covered with a synthetic semipermeable (i.e., breathable fabric) cover. According to the California Department of Resources Recycling and Recovery (CalRecycle), covering compost piles with breathable fabrics can help reduce water needs during hot, dry weather and may help avoid soggy, anaerobic piles during periods of heavy rain. Forced aeration helps avoid anaerobic conditions within covered or static piles, since normal convective air flow may be restricted by either the cover itself or the size of the pile. Covered or aerated compost systems may also help composters reduce odors as well as regulate air emissions. Figure 2 shows the site plan.

Existing Sensitive Land Uses in the Project Area

The project site is surrounded primarily by the existing Landfill, vacant land, and residential uses. The areas adjacent to the project site within 1 mile or 5,280 feet (ft) include the following uses:

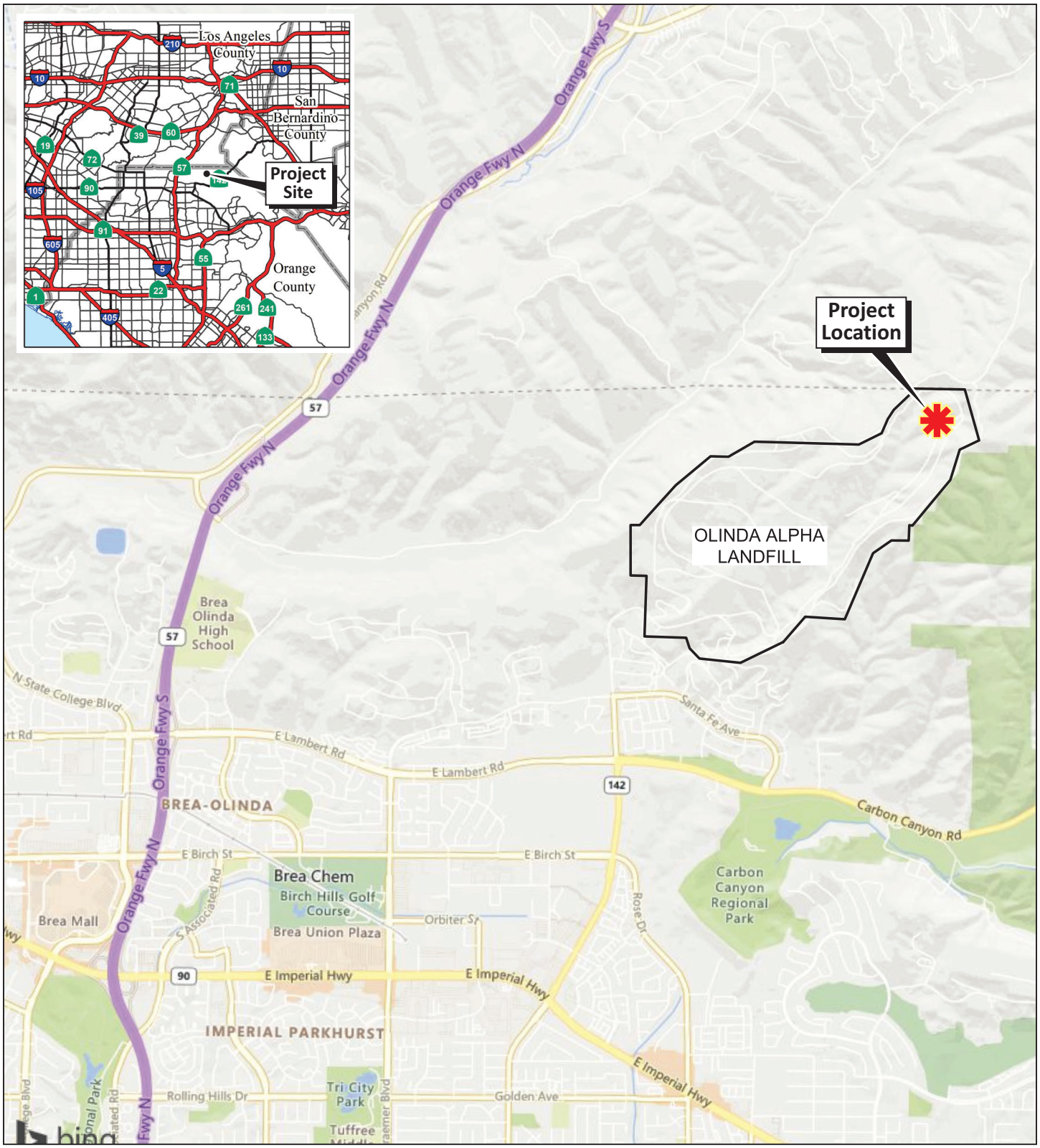
- **North:** Undeveloped land.
- **South:** Olinda Landfill and undeveloped land.
- **West:** Olinda Landfill and undeveloped land.
- **East:** Undeveloped land.

For the purposes of this analysis, sensitive receptors are areas of population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include residences, schools, daycare centers, hospitals, parks, and similar uses that are sensitive to air quality. Impacts on sensitive receptors are of particular concern because those receptors are the populations most vulnerable to the effects of air pollution. The closest sensitive receptor locations to the project site include the single-family residences within the Olinda Village Community, located approximately 1.2 miles southeast of the project site along Lilac Lane.

ENVIRONMENTAL SETTING

Air Quality Background

Air quality is primarily a function of local climate, local sources of air pollution, and regional pollution transport. The amount of a given pollutant in the atmosphere is determined by the amount of the pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.



LSA

FIGURE 1

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0 1500 3000

FEET

SOURCE: Bing Maps

Valencia Greenery Project

Project Location

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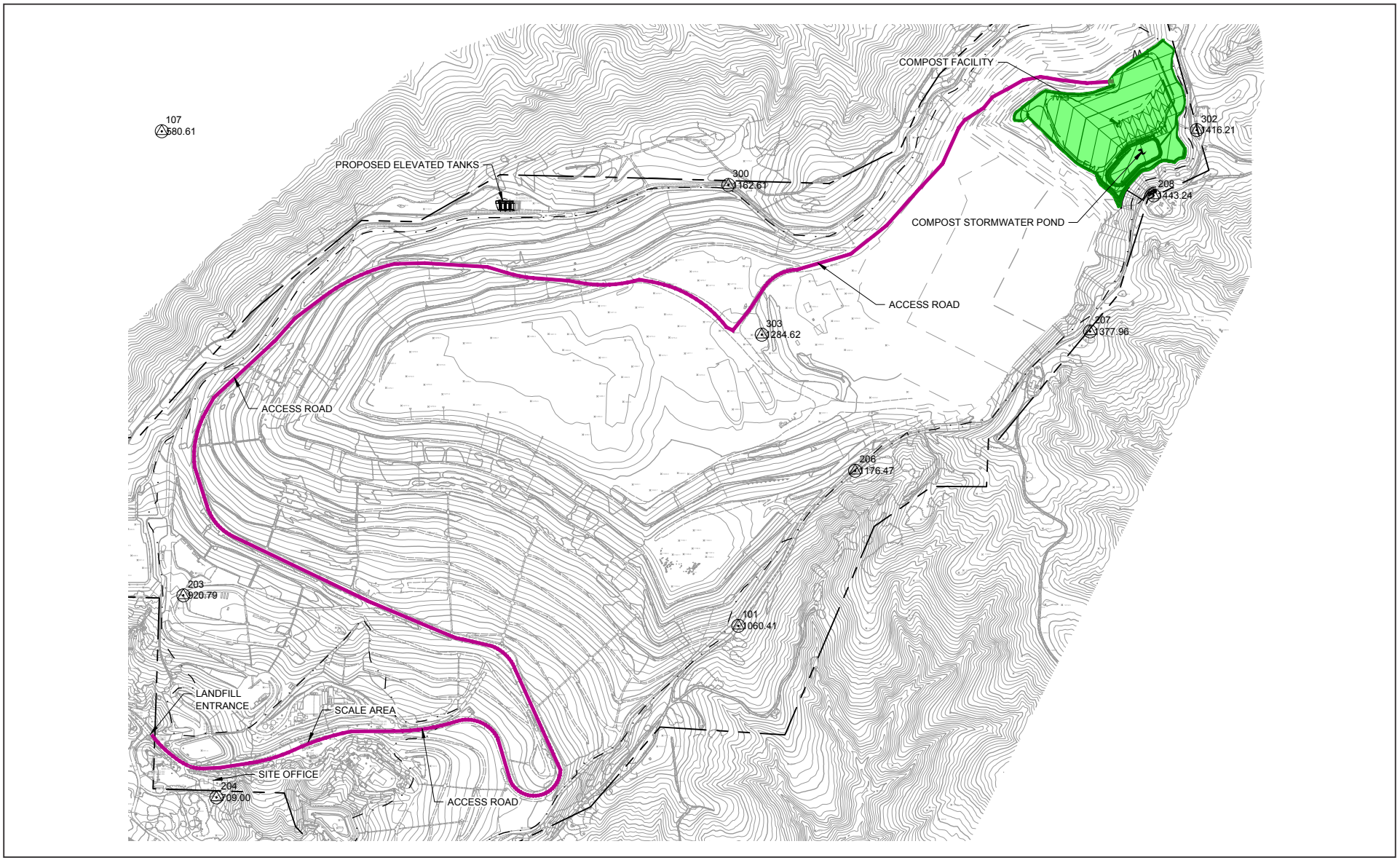

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FIGURE 2

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SOURCE: Tetra Tech

Valencia Greenery Project

Site Plan

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A region's topographic features have a direct correlation with air pollution flow and therefore are used to determine the boundary of air basins. The project site is in Orange County and is within the jurisdiction of SCAQMD, which regulates air quality in the South Coast Air Basin (Basin).

The Basin comprises approximately 10,000 square miles and covers all of Orange County and the urban parts of Los Angeles, Riverside, and San Bernardino Counties. The Basin is on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east, forming the inland perimeter.

Both State and federal governments have established health-based Ambient Air Quality Standards for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and Pb are considered local pollutants that tend to accumulate in the air locally.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no known direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as O_3 precursors like nitrogen oxides (NO_x) and volatile organic compounds (VOCs).

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

Local Air Quality

Air quality monitoring stations are located throughout the nation and are maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the United State Environmental Protection Agency (EPA) to identify regions as "attainment" or "nonattainment" depending on whether the regions meet the requirements stated in the applicable National Ambient Air Quality Standards (NAAQS). Nonattainment areas are imposed with additional restrictions as required by the EPA. In addition, different classifications of attainment (e.g., marginal, moderate, serious, severe, and extreme) are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and to comply with the NAAQS. As

shown in Table A, the Basin is designated as nonattainment by federal standards for O_3 and $PM_{2.5}$ and nonattainment by State standards for O_3, PM_{10}, and $PM_{2.5}$.

Table A: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Unclassified/Attainment (1-hour) Attainment/Maintenance (Annual)
SO_2	Attainment	Unclassified/Attainment
Lead	Attainment[1]	Unclassified/Attainment[1]
All Others	Attainment/Unclassified	Attainment/Unclassified

Source: NAAQS and CAAQS Attainment Status for South Coast Air Basin (SCAQMD 2016). Available online at: www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf (accessed April 2021). Nonattainment Areas for Criteria Pollutants (Green Book) (EPA 2019). Website: www.epa.gov/green-book (accessed April 2021).

[1] Only the Los Angeles County portion of the South Coast Air Basin is in nonattainment for lead.

CAAQS = California Ambient Air Quality Standards
CO = carbon monoxide
EPA = United States Environmental Protection Agency
N/A = not applicable
NAAQS = National Ambient Air Quality Standards
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide

The SCAQMD, together with the California Air Resources Board (CARB), maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the project area is the 621 West Lambert ambient air quality monitoring station in La Habra. The air quality trends from this station are used to represent the ambient air quality in the project area. Ambient air quality in the project area from 2017 to 2019 is shown in Table B. $PM_{2.5}$, PM_{10}, and SO_2 are not monitored at the La Habra station; therefore, Table F includes $PM_{2.5}$ and PM_{10} data from the 812 West Vermont Street ambient air quality monitoring station in Anaheim and SO_2 data from the 2850 Mesa Verde Drive ambient air quality monitoring station in Costa Mesa.

Pollutant monitoring results for the years 2017 to 2019 indicate that air quality in the project vicinity has generally been good. As indicated in the monitoring results, no violations of the federal PM_{10} standard occurred during the 3-year period. The State PM_{10} standard was exceeded five times in 2017, twice in 2018, and four times in 2019. The State 1-hour O_3 standard was exceeded five times in 2017, three times in 2018, and four times in 2019. In addition, the State 8-hour O_3 standard was exceeded 12 times in 2017, four times in 2019, and six times in 2019, and the federal 8-hour O_3 standard was exceeded 12 times in 2017, four times in 2018, and six times in 2019. The CO, SO_2, and NO_2 standards were not exceeded in 2017. SO_2 data were not available at any of the Orange County monitoring stations during 2018 and 2019.

Table B: Ambient Air Quality at Nearby Monitoring Stations

Pollutant	Standard	2017	2018	2019
Carbon Monoxide (CO) – La Habra Monitoring Station				
Maximum 1-hour concentration (ppm)		3.8	3.0	2.6
Number of days exceeded:	State: >20 ppm	0	0	0
	Federal: >35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.7	1.4	1.2
Number of days exceeded:	State: >9 ppm	0	0	0
	Federal: >9 ppm	0	0	0
Ozone (O_3) – La Habra Monitoring Station				
Maximum 1-hour concentration (ppm)		0.113	0.111	0.107
Number of days exceeded:	State: >0.09 ppm	5	3	4
Maximum 8-hour concentration (ppm)		0.087	0.078	0.095
Number of days exceeded:	State: >0.07 ppm	12	4	6
	Federal: >0.08 ppm	12	4	6
Coarse Particulates (PM_{10}) – Anaheim Monitoring Station				
Maximum 24-hour concentration (µg/m^3)		95.7	94.6	127.6
Number of days exceeded:	State: >50 µg/m^3	5	2	4
	Federal: >150 µg/m^3	0	0	0
Annual arithmetic average concentration (µg/m^3)		26.9	27.7	24.4
Exceeded for the year:	State: >20 µg/m^3	Yes	Yes	Yes
	Federal: >50 µg/m^3	No	No	No
Fine Particulates ($PM_{2.5}$)[1] – Anaheim Monitoring Station				
Maximum 24-hour concentration (µg/m^3)		53.9	63.1	36.1
Number of days exceeded:	Federal: >35 µg/m^3	7	7	4
Annual arithmetic average concentration (µg/m^3)		ND	11.4	9.3
Exceeded for the year:	State: >12 µg/m^3	No	No	No
	Federal: >12 µg/m^3	No	No	No
Nitrogen Dioxide (NO_2)[2] – La Habra Monitoring Station				
Maximum 1-hour concentration (ppm)		0.076	0.067	0.059
Number of days exceeded:	State: >0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.015	0.013	0.012
Exceeded for the year:	Federal: >0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)[3] – Costa Mesa Monitoring Station				
Maximum 1-hour concentration (ppm)		0.002	ND	ND
Number of days exceeded:	State: >0.25 ppm	0	ND	ND
Maximum 24-hour concentration (ppm)		0.0005	ND	ND
Number of days exceeded:	State: >0.04 ppm	0	ND	ND
	Federal: >0.14 ppm	0	ND	ND
Annual arithmetic average concentration (ppm)		0.0001	ND	ND
Exceeded for the year:	Federal: >0.030 ppm	No	No	ND

Sources: CARB. Top 4 Summary: Select Pollutant, Years, & Area (Website: https://www.arb.ca.gov/adam/topfour/topfour1.php; accessed April 2021), and EPA. Outdoor Air Quality Data: Monitor Values Report (Website: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report; accessed April 2021).

[1] Data taken at the 812 West Vermont Street ambient air quality monitoring station in Anaheim.

[2] Data taken at the 621 West Lambert ambient air quality monitoring station in La Habra.

[3] Data taken at the 2850 Mesa Verde Drive ambient air quality monitoring station in Costa Mesa.

µg/m^3 = micrograms per cubic meter

CARB = California Air Resources Board

EPA = United States Environmental Protection Agency

ND = No data. There were insufficient (or no) data to determine the value.

ppm = parts per million

Climate/Meteorology

Air quality in the planning area is affected by not only various emission sources (e.g., mobile and industry) but also atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States gives the Basin some of the worst air pollution in the nation.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s °F. With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Yorba Linda station.[1] The monthly average maximum temperature recorded at this station ranges from 66.9°F in January to 88.4°F in August, with an annual average maximum of 77.0°F. The monthly average minimum temperature recorded at this station ranges from 41.7°F in January to 58.5°F in August, with an annual average minimum of 49.7°F. These levels are still representative of the project area.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. Average monthly rainfall at the Yorba Linda station varies from 3.10 inches in February to 0.01 inch in July, with an annual total of 14.40 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in midafternoon to late afternoon on hot summer days, when the air appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in the project area blow predominantly from the south-southwest, with relatively low velocities. Wind speeds in the project area average about 6 miles per hour (mph). Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. The Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly on shore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and NO_x because of extremely low

[1] Western Regional Climate Center (WRCC). Yorba Linda, California (049847): Period of Record Monthly Climate Summary. Website: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9847 (accessed April 2021).

inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog. Smog is a general term for naturally occurring fog that has become mixed with smoke or pollution. In this context, it is better described as a form of air pollution produced by the photochemical reaction of sunlight with pollutants that have been released into the atmosphere, especially by automotive emissions.

Regional Air Quality Trends

Criteria Pollutants. As previously discussed, the proposed project is under the jurisdiction of the SCAQMD, which is responsible for formulating and implementing the air quality management plan (AQMP) for the Basin in order to bring the area into compliance with federal and State air quality standards. Air quality in the Basin has improved as a result of the development of SCAQMD rules and control programs and the development and application of cleaner technology. Ambient levels of O_3, NO_X, VOCs, and CO have been generally decreasing since 1975. The levels of PM_{10} and $PM_{2.5}$ in the air have decreased since 1975, and direct emissions of $PM_{2.5}$ have decreased, although direct emissions of PM_{10} have shown little change. As stated in the SCAQMD 2016 AQMP for the Basin, the overall population of the region is expected to continue to increase beyond 2023. Despite this population growth, air quality has improved significantly over the years, primarily due to the impacts of air quality control programs at the local, State, and federal levels.

Figure 3 shows the trends since 1990 of the 8-hour O_3 levels, 1-hour O_3 levels, and annual average $PM_{2.5}$ concentrations (since 1999) compared to the regional gross domestic product, total employment, and population.

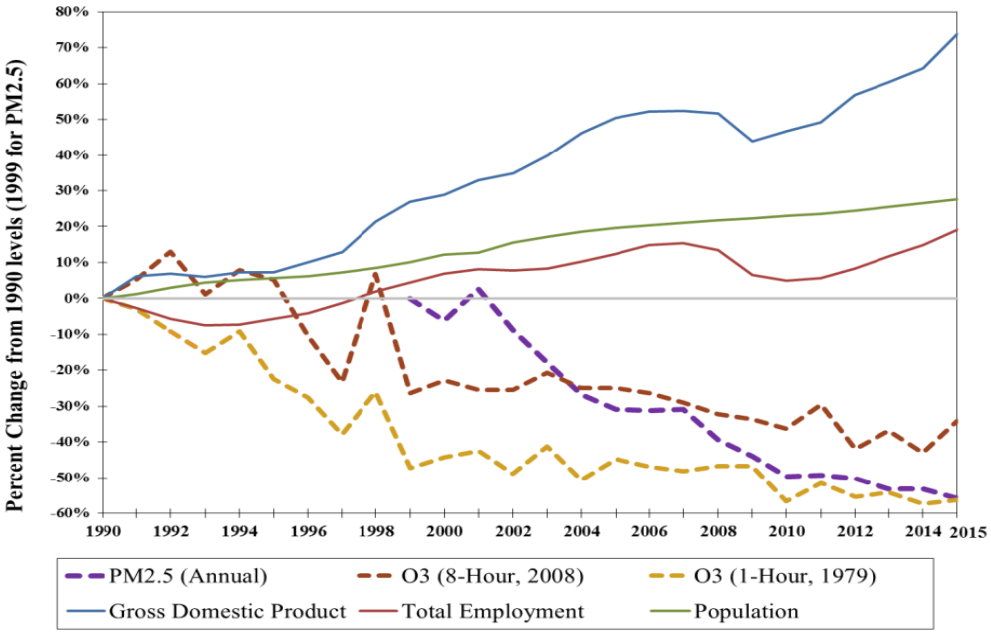
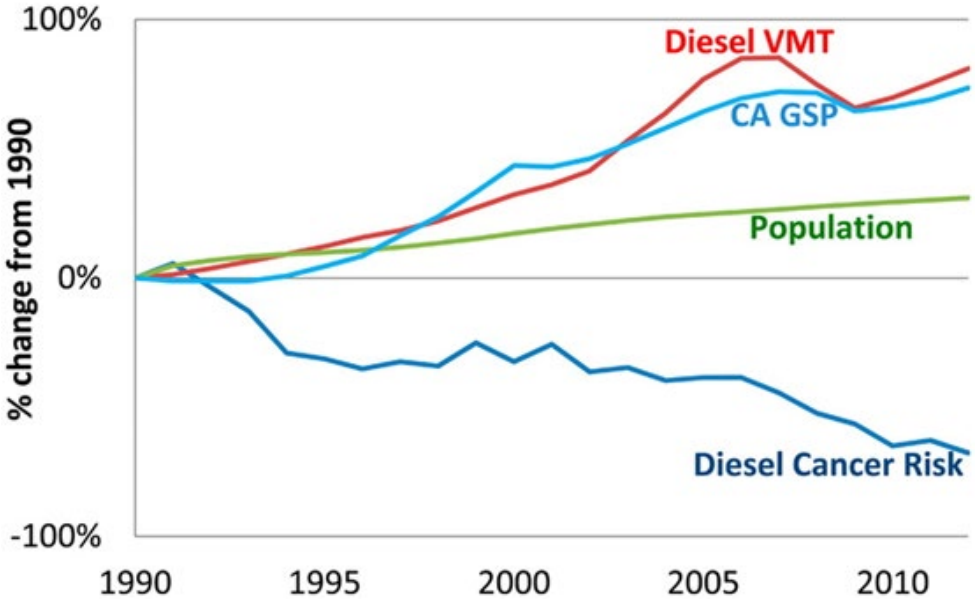


Figure 3: South Coast Air Basin Percent Change in Air Quality and Demographic Data

The 2007–2009 recession decreased gross domestic product and employment, but they have recovered, as shown on Figure 3. However, the O_3 and $PM_{2.5}$ levels continue to trend downward despite increasing economic activity and population, demonstrating that it is possible to maintain a healthy economy while improving public health through air quality improvements.

Toxic Air Contaminants Trends. In 1984, CARB adopted regulations to reduce toxic air contaminant (TAC) emissions from mobile and stationary sources, as well as consumer products. A CARB study showed that ambient concentrations and emissions of the seven TACs responsible for the most cancer risk from airborne exposure declined by 76 percent between 1990 and 2012.[1] Concentrations of diesel particulate matter (DPM), a key TAC, declined by 68 percent between 1990 and 2012, despite a 31 percent increase in State population and an 81 percent increase in diesel vehicle miles traveled (VMT), as shown on Figure 4.



Source: Ambient and Emission Trends of Toxic Air Contaminants in California (Propper, Wong. Bui, Austin, Vance, Alvarado, Croes, and Luo. 2015).

The study also found that the significant reductions in cancer risk to California residents from the implementation of air toxics controls are likely to continue. SCAQMD has conducted four *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (MATES) studies that document a decrease in cancer risk of 57 percent between the last two editions (i.e., between 2005 and 2015).

[1] Propper, Wong. Bui, Austin, Vance, Alvarado, Croes, and Luo. 2015. Ambient and Emission Trends of Toxic Air Contaminants in California. *American Chemical Society: Environmental Science & Technology*. Website: pubs.acs.org/doi/full/10.1021/acs.est.5b02766 (accessed May 2021).

Energy Background

Electricity

Electricity is a manmade resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, or nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).[1]

According to the most recent data available, in 2019, California's electricity was generated primarily by natural gas (42.97 percent), renewable sources (32.09 percent), large hydroelectric (16.53 percent), nuclear (8.06 percent), coal (0.12 percent), and oil (0.02 percent). Total electric generation in California in 2019 was 277,704 gigawatt-hours (GWh), down 2 percent from the 2018 total generation. In 2018, California produced 72.2 percent and imported 27.8 percent of the electricity it used.[2]

The project site is within the service territory of SCE. According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2019 was 80,912.73 GWh.[3] Total electricity consumption in Orange County in 2019 was 19,459.51 GWh.[4]

Natural Gas

Natural gas is a nonrenewable fossil fuel. Fossil fuels form when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over many years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).[5]

Natural gas consumed in California is used for electricity generation (36 percent), residential uses (16 percent), industrial uses (33 percent), and commercial uses (11 percent). California continues to depend on out-of-state imports for nearly 90 percent of its natural gas supply.[6]

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1 California Energy Commission (CEC). 2020a. 2019 Total System Electric Generation. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation (accessed May 2021).

2 CEC. 2020b. *Notice of Request for Public Comments on the Draft Scoping Order for the 2019 Integrated Energy Policy Report*. Docket No. 19-IEPR-01.

3 CEC. 2020c. Electricity Consumption by Entity. Website: ecdms.energy.ca.gov/elecbyutil.aspx (accessed May 2021).

4 CEC. 2020d. Electricity Consumption by County. Website: ecdms.energy.ca.gov\\elecbycounty.aspx (accessed May 2021).

5 U.S. Energy Information Administration. 2019. Natural Gas Explained—Use of Natural Gas. Website: eia.gov\\energyexplained\\index.php?page=natural_gas_use (accessed May 2021).

6 CEC, 2020e. Supply and Demand of Natural Gas in California. Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed May 2021).

The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project site. According to the CEC, total natural gas consumption in the SoCalGas service area in 2019 was 5,424.71 million therms.[1] Total natural gas consumption in Orange County in 2019 was 623.15 million therms.[2]

Fuel

Petroleum is also a nonrenewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the Earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a larger number of consumer products, primarily fuel oil and gasoline.

Gasoline is the most-used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was approximately 360 million barrels or 1,812 trillion British thermal units (BTU) in 2019.[3] Of the total gasoline consumption, approximately 344 million barrels or 1,736 trillion BTU were consumed for transportation.[4]

Greenhouse Gases and Global Climate Change Background

Global climate change (GCC) is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2° Celsius (°C) or 1.1 ± 0.4° Fahrenheit (°F) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[5]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The following gases are widely seen as the principal contributors to human-induced GCC:

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1 CEC. 2020f. Gas Consumption by Entity. Website: cdms.energy.ca.gov\\gasbyutil.aspx (accessed May 2021).

2 CEC. 2020g. Gas Consumption by County. Website: cdms.energy.ca.gov\\gasbycounty (accessed May 2021).

3 A British thermal unit is defined as the amount of heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit.

4 U.S. Energy Information Administration. 2020. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates. 2017. Website: eia.gov\\state\\seds\\data.php?incfile=\\state\\seds\\sep_fuel\\html\\fuel_mg.html&sid=CA (accessed May 2021).

5 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse allows heat from sunlight in and reduces the heat escaping, greenhouse gases (GHGs) like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of GHGs result in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

- CO_2
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While man-made GHGs include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6, are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this GHG emissions analysis, the term "GHGs" will refer collectively to the six gases listed above only.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by 1 unit mass of the GHG to the ratio of heat trapped by 1 unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e).Table C shows the GWP for each type of GHG. For example, SF_6 is 22,800 times more potent at contributing to global warming than CO_2.

Table C: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide (CO_2)	50–200	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoromethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC* (IPCC 2007).
HFC = hydrofluorocarbon
IPCC = Intergovernmental Panel on Climate Change
PFC = perfluorocarbon

REGULATORY SETTING

This section provides regulatory background information for air quality, energy, and GHG.

Air Quality

Applicable federal, State, regional, and local air quality regulations are discussed below.

Federal Regulations

The 1970 Federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and set deadlines for their attainment. The CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required for areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

State Regulations

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

The CARB is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

Regional Regulations

The proposed project would be required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. SCAQMD Rule 1113 limits the VOC content of architectural coatings. Applicable dust suppression techniques from SCAQMD Rule 403 and low VOC content in paints under SCAQMD Rule 1113 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

South Coast Air Quality Management District Rule 403 Measures.

- Water active sites at least twice times daily (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- Traffic speeds on all unpaved roads shall be reduced to 15 mph or less.

South Coast Air Quality Management District Rule 1113 Measures. SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction and operation of the proposed project. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Energy

Applicable federal, State, regional, and local energy regulations are discussed below,

Federal Regulations

Energy Policy Act of 2005. The Energy Policy Act of 2005 seeks to reduce reliance on nonrenewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Safer Affordable Fuel-Efficient Vehicles Rule. On March 21, 2020, the EPA and National Highway Traffic Safety Administration (NHTSA) finalized the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks. The SAFE Vehicles Rule amends certain existing Corporate Average Fuel Economy and tailpipe CO_2 emissions standards for passenger cars and light trucks and establish new standards, all covering model years 2021 through 2026. More specifically, NHTSA set new Corporate Average Fuel Economy standards for model years 2022 through 2026 and amended its 2021 model year Corporate Average Fuel Economy standards, and the EPA amended its CO_2 emission standards for model years 2021 and later.

State Regulations

Senate Bill 1389, Energy: Planning and Forecasting. In 2002, the State Legislature passed and Governor Gray Davis signed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the fewest environmental and energy costs. To further this policy, the plan identifies a number of

strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an Integrated Energy Policy Report every 2 years and an update every other year. The most recently adopted reports include the *2019 Integrated Energy Policy Report*[1] and the *2020 Integrated Energy Policy Report Update.*[2] The *2019 Integrated Energy Policy Report* covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast. The *2020 Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The CEC approved the *2020 Integrated Energy Policy Report* in March 2021.[3]

Renewable Portfolio Standard. SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all State's electricity to come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.[4]

Regional Regulations

There are no regional energy regulations that apply to the proposed project.

Greenhouse Gas Emissions

This section describes regulations related to global climate change at the federal, State, and local level.

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1 CEC. 2020h. *2019 Integrated Energy Policy Report*. California Energy Commission. Publication Number: CEC-100-2019-001-V1-CMF. March.

2 CEC. 2021. *2020 Integrated Energy Policy Report Update*. California Energy Commission. Publication Number: CEC-100-2020-001-V1-CMF. February.

3 CEC. 2019. Notice of Request for Public Comments on the Draft Scoping Order for the *2019 Integrated Energy Policy Report*. Docket No. 19-IEPR-01.

4 California Public Utilities Commission (CPUC). 2019. Renewables Portfolio Standard Program. Website: cpuc.ca.gov/rps (accessed May 2021).

Federal Regulations

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the CAA.

While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 to implement a regulatory approach to global climate change, including the 2009 EPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the EPA Administrator signed an endangerment finding action in 2009 under the CAA, finding that seven GHGs (CO_2, CH_4, N_2O, HFCs, NF_3, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

State Regulations

CARB is the lead agency for implementing climate change regulations in the State. Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, which was passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. CARB established the level of GHG emissions in 1990 at 427 million metric tons (MMT) CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to GCC. The Scoping Plan was approved by CARB on December 11, 2008, and contains the main strategies that California will implement to achieve the reduction of approximately 169 MMT CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020 and sets the groundwork to reach long-term goals set forth in Executive Orders (EOs) S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other

State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[1] to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

Senate Bill 375 (2008). Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every 4 years and must update them every 8 years. MPOs, in turn, must demonstrate how their plans, policies and transportation investments meet the targets set by the CARB through Sustainable Community Strategies (SCS). The SCSs are included with the Regional Transportation Plan, a report required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction target, it may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015). Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and, therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent
- Increase energy efficiency in buildings by 50 percent by the year 2030

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission (CPUC) for the private utilities and by the CEC for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other nonrenewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under existing law. The addition made by this legislation requires State energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

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[1] California Air Resources Board (CARB). 2017. *California's 2017 Climate Change Scoping Plan*. November.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016 the Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emission trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million (ppm) CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100, which raises California's renewable portfolio standard requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the Western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Regional Regulations

South Coast Air Quality Management District. In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the Basin. The Working Group developed several different options that are contained in the SCAQMD 2008 draft guidance document titled *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* that could be applied by lead agencies. On September 28, 2010, SCAQMD Working Group Meeting #15 provided further guidance, including a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency. The SCAQMD has not presented a finalized version of these thresholds to the governing board.

SCAQMD identifies the emissions level for which a project would not be expected to substantially conflict with any State legislation adopted to reduce statewide GHG emissions. As such, the utilization of a service population represents the rates of emissions needed to achieve a fair share of the State's mandated emissions reductions. Overall, SCAQMD identifies a GHG efficiency level that, when applied statewide or to a defined geographic area, would meet the 2020 and post-2020

emission targets as required by AB 32 and SB 32. If projects are able to achieve targeted rates of emissions per the service population, the State would be able to accommodate expected population growth and achieve economic development objectives while also abiding by AB 32's emissions target and future post-2020 targets.

Southern California Association of Governments. The Southern California Association of Governments (SCAG) is a regional council consisting of the following six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. In total, the SCAG region encompasses 191 cities and over 38,000 square miles within Southern California. SCAG is the MPO serving the region under federal law and serves as the Joint Powers Authority, the Regional Transportation Planning Agency, and the Council of Governments under State law. As the Regional Transportation Planning Agency, SCAG prepares long-range transportation plans for the Southern California region, including the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the 2008 Regional Comprehensive Plan (RCP).

On September 3, 2020, SCAG adopted Connect SoCal–The 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, CARB has set GHG reduction targets at 8 percent below 2005 per capita emissions levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high-quality transit areas and livable corridors and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles. However, the SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

METHODOLOGY

Construction Emissions

Construction activities can generate a substantial amount of air pollution. Construction activities are considered temporary; however, short-term impacts can contribute to exceedances of air quality standards. Construction activities include site preparation, earthmoving, and general construction. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site.

The proposed project would be developed in two phases: Phase I – Open Windrow Composting and Phase II – CASP Composting. Construction of Phase I would occur for approximately three months and construction of Phase II would also occur for approximately three months. The proposed project would require a net fill of 250,000 cubic yards of soil; however, all fill would be provided internally.

In addition, this analysis assumes that a total of 15.3 acres would be graded during project construction. Other construction details are not yet known; therefore, default assumptions (e.g., construction fleet activities) from CalEEMod were used.

Operational Emissions

Consistent with the SCAQMD guidance for estimating emissions associated with land use development projects, CalEEMod was used to calculate the long-term operational emissions associated with the proposed project. For purposes of evaluating the proposed project, the county in CalEEMod was specified as Orange County, and the climate zone of 13 was selected. Based on this climate zone, CalEEMod assumed a wind speed of 2.2 meters per second (4.9 mph) and precipitation frequency of 30 days per year. The operational year was assumed to be 2022. The CalEEMod analysis assumed 9 acres of asphalt surfaces.

Once operational, the proposed project would generate 10 worker trips and 8 truck trips during Phase I and 10 worker trips and 24 truck trips during Phase II. Operation of the proposed project would also require the use of a 99 horsepower (HP) mobile screen, a 298 HP loader, a 178 HP loader, a 390 HP windrow turner, a 370 HP water truck, a 445 HP dump truck, a 76 HP cover turner, a 950 HP chipper/grinder, and a 62 HP conveyor . The loaders, water truck, and dump truck are already in use at the existing Landfill; therefore, the mobile screen, windrow turner, cover turner, chipper/grinder, and conveyor were included in CalEEMod. Based on information provided by OCWR, all equipment would be used 6 days per week and the mobile screen would be used 5 hours per day; the windrow turner would be used 10 hours per day during Phase I and 3 hours per day during Phase II; the cover turner would be used 5 hours per day; and the chipper/grinder and conveyor would be used approximately 6.5 hours per day.

The proposed project would be designed as a stand-alone system with a solar field to supply electric power and operations water provided by existing water trucks. In addition, Phase II would include a 200 kilowatt (kW) diesel emergency backup generator, which was also included in CalEEMod. CalEEMod output sheets are provided as attachments to this memorandum.

Energy

Energy use consumed by the proposed project would be associated with fuel used for on-site off-road equipment and vehicle trips associated with the project. The project would not consume any electricity or natural gas during operation. The analysis is based on data included in the CalEEMod output.

Greenhouse Gas Analysis

GHG emissions associated with the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be minimal long-term GHG emissions associated with project-related vehicular trips or other sources. Recognizing that the field of GHG analysis is rapidly evolving, the approaches advocated most recently indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project area.

THRESHOLDS OF SIGNIFICANCE

The *State CEQA Guidelines* indicate that a project would normally have a significant adverse air quality impact if project-generated pollutant emissions would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project is nonattainment under applicable federal or State ambient air quality standards (AAQS);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) affecting a substantial number of people.

A quantitative odor analysis is being conducted separately; therefore, this criterion is not further addressed below.

In addition, the *State CEQA Guidelines* indicate that a project would normally have a significant adverse energy impact if the project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The *State CEQA Guidelines* indicate that a project would normally have a significant adverse GHG emissions impact if the project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Regional Emissions Thresholds

The SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Table D lists the CEQA significance thresholds for construction and operational emissions established for the Basin. Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which the SCAQMD developed and that apply throughout

the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

Table D: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOCs	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: Air Quality Significance Thresholds (SCAQMD 2019).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20 ppm
- California State 8-hour CO standard of 9 ppm

Localized Impacts Analysis

The SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008,[1] recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors. This guidance was used to analyze potential localized air quality impacts associated with construction of the proposed project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emissions source, the ambient air quality in the source receptor area, and the distance to the project. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality.

LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is the North Orange County area (SRA 16). The SCAQMD provides LST screening tables for 25-, 50-, 100-, 200-, and 500-meter (82-, 164-, 328-, 656-, and 1,640 ft) source-receptor distances. As identified above, the closest sensitive receptor locations to the project site include the single-family residences within the Olinda Village Community, located approximately 1.2 miles southeast of the project site along Lilac Lane. An LST analysis was completed to show the construction and operational impacts conservatively at a distance of 500 meters (1,640 ft) to the nearest sensitive receptors southeast of the project site. The total project site is 15.3 acres;

[1] South Coast Air Quality Management District (SCAQMD). 2008. *Final Localized Significance Threshold Methodology*. July. Website: http://www.aqmd. gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf (accessed July 2021).

therefore, the 5-acre thresholds would apply to the proposed project. Table E lists the emissions thresholds that apply during project construction and operation.

Table E: Localized Significance Thresholds

Emissions Source	Pollutant Emissions Threshold (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction (5-acre, 1,640 ft distance)	317	8,754	165	95
Operation (5-acre, 1,640 ft distance)	317	8,754	40	23

Source: *Final Localized Significance Threshold Methodology* (SCAQMD 2008).
CO = carbon monoxide
ft = foot/feet
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District

Global Climate Change

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD proposed to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1. Exemptions:** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2. Consistency with a Locally Adopted GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3. Numerical Screening Threshold:** If GHG emissions are less than the numerical screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, the SCAQMD requires an assessment of GHG emissions. The SCAQMD, under Option 1, proposed a "bright-line" screening-level threshold of 3,000 metric tons (MT) CO_2e per year for all land use types or, under Option 2, the following land-use-specific thresholds: 1,400 MT CO_2e for commercial projects, 3,500 MT CO_2e for residential projects, or 3,000 MT CO_2e for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research (OPR) database of CEQA projects. Based on that review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions.

- **Tier 4. Performance Standards:** If emissions exceed the numerical screening threshold, a more detailed review of the project's GHG emissions is warranted. The SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended

approach is per-capita efficiency targets. The SCAQMD is not recommending the use of a percent emissions reduction target. Instead, the SCAQMD proposed a 2020 efficiency target of 4.8 MT CO_2e per year per service population for project-level analyses and 6.6 MT CO_2e per year per service population for plan-level projects (e.g., program-level projects such as General Plans). The GHG efficiency metric divides annualized GHG emissions by the service population, which is the sum of residents and employees, per the following equation:

Rate of Emission= GHG Emissions (MT CO_2e/yr) ÷ Service Population

The efficiency evaluation consists of comparing the project's efficiency metric to efficiency targets. Efficiency targets represent the maximum quantity of emissions each resident and employee in California could emit in various years based on emission levels necessary to achieve the statewide GHG emissions reduction goals. A project that results in a lower rate of emissions would be more efficient than a project with a higher rate of emissions, based on the same service population. The metric considers GHG reduction measures integrated into a project's design and operation (or through mitigation). The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.

Because the project would begin operations in the post-2020 timeframe, the 2020 numerical screening threshold of 3,000 MT CO_2e and the efficiency target of 4.8 MT CO_2e per year per service population would need to be adjusted to reflect the State's post-2020 GHG reduction goals.

CARB has completed a Scoping Plan, which will be utilized by the SCAQMD to establish the 2030 GHG efficiency threshold. SCAQMD has yet to publish a quantified GHG efficiency threshold for the 2030 target. A scaled threshold consistent with State goals detailed in SB 32, EO B-30-15, and EO S-3-05 to reduce GHG emissions by 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050, respectively, was developed for 2022, when construction of the proposed project would be completed. Though the SCAQMD has not published a quantified threshold beyond 2020, this assessment uses a threshold of 2,760 MT CO_2e per year or 3.6 MT CO_2e per year per service population, which was calculated for the project operational year of 2022 based on the GHG reduction goals of SB 32 and EO B-30-15.

For the purpose of this analysis, the proposed project will be compared to the adjusted screening-level Tier 3 Numerical Screening Threshold of 2,760 MT CO_2e per year. The proposed project will also be evaluated for compliance with SCAG's 2020–2045 RTP/SCS, which establishes an overall GHG target for the project region consistent with the post-2020 GHG reduction goals of SB 32.

IMPACTS AND MITIGATION

This section identifies the air quality, energy, and GHG impacts associated with implementation of the proposed project.

Air Quality Impacts

This section describes potential air quality impacts associated with the proposed project.

Consistency with Applicable Air Quality Plans

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review due to the air quality plan strategy being based on projections from local General Plans.

The AQMP is based on regional growth projections developed by SCAG. The proposed project would implement a green waste composting operation at the Olinda Alpha Landfill. The proposed project would not house any persons, occupy more than 40 acres of land, or encompass more than 650,000 square feet of floor area. Thus, the proposed project would not be defined as a regionally significant project under CEQA and, therefore, it does not meet SCAG's Intergovernmental Review criteria.

Pursuant to the methodology provided in the SCAQMD's 1993 *CEQA Air Quality Handbook* (currently being revised), consistency with the Basin's 2016 AQMP is affirmed when a project (1) would not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The proposed project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by the SCAQMD, as demonstrated below; therefore, the proposed project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standards violation.

2. The SCAQMD's *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. The proposed project would implement a green waste composting operation at the Olinda Alpha Landfill consistent with State standards for solid waste diversion; therefore, the proposed project is not defined as a significant project as defined by the SCAQMD *CEQA Air Quality Handbook*.

Based on the consistency analysis presented above, the proposed project would be consistent with the regional AQMP.

Criteria Pollutant Analysis

The Basin is currently designated as nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the PM_{10} standard. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of an ambient air quality standard. Instead, a project's individual emissions

contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by grading, paving, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, VOCs, directly emitted PM ($PM_{2.5}$ and PM_{10}), and TACs such as DPM.

Project construction activities would include grading, soil import, paving and asphalt placement, and other activities. Construction-related effects on air quality from the proposed project would be greatest during the grading phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on the soil moisture, silt content of soil, wind speed, and amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The SCAQMD has established Rule 403, Fugitive Dust, which would require the applicant to implement measures that would reduce the amount of PM generated during the construction period. The following Rule 403 measures were incorporated in the CalEEMod analysis:

- Water active sites at least three times daily (the locations where grading is to occur shall be thoroughly watered prior to earthmoving).

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.

- Reduce traffic speeds on all unpaved roads to 15 mph or less.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs, and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic.

These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using CalEEMod. The proposed project would be developed in two phases: Phase I – Open Windrow Composting and Phase II – CASP Composting. Construction of Phase I would occur for approximately three months and construction of Phase II would also occur for approximately three months. In addition, this analysis assumes that a total of 15.3 acres would be graded during project construction. Other construction details are not yet known; therefore, default assumptions (e.g., construction fleet activities) from CalEEMod were used. This analysis assumes the use of Tier 2 construction equipment.

Table F lists the illustrative project construction schedule for the proposed project. Table G lists the potential construction equipment to be used during project construction. Construction-related emissions are presented in Table H. The CalEEMod output sheets are provided as attachments to this memorandum.

Table F: Illustrative Project Construction Schedule

Phase Name	Number of Days/Week	Total Number of Days
Phase I		
Site Preparation	5	14
Grading	5	25
Paving	5	8
Phase II		
Site Preparation	5	18
Grading	5	30
Paving	5	19

Source: Compiled by LSA Associates, Inc. (November 2021).

Table G: Diesel Construction Equipment Utilized by Construction Phase

Construction Phase	Off-Road Equipment Type	Off-Road Equipment Unit Amount	Hours Used per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
	Graders	1	8	187	0.41
	Rubber Tired Dozers	1	8	247	0.40
	Tractors/Loaders/Backhoes	3	8	97	0.37
Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	132	0.36
	Rollers	2	8	80	0.38

Source: Compiled by LSA Associates, Inc. (November 2021).

Table H: Project Construction Emissions

Project Construction	Maximum Pollutant Emissions (lbs/day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase I Peak Daily Emissions	3.9	33.8	23.5	<0.1	9.3	5.5
Phase II Peak Daily Emissions	2.2	33.8	23.5	<0.1	9.3	5.5
SCAQMD Thresholds	75.0	100.0	550.0	150	150.0	55.0
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (November 2021).

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

As shown in Table H, construction emissions associated with the proposed project would not exceed the SCAQMD thresholds for VOCs, NO_X, CO, sulfur oxides (SO_x), $PM_{2.5,}$ or PM_{10} emissions during Phase I or Phase II. In addition to the construction period thresholds of significance, the proposed project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. SCAQMD Rule 403 requires that fugitive dust be controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Therefore, with implementation of SCAQMD Rule 403, construction of the proposed project would not result in a cumulatively considerable increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Operational Air Quality Impacts. Long-term air pollutant emission impacts are those typically associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment), off-road sources (e.g., use of off-road equipment), and stationary sources (e.g., emergency backup generator).

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of PM emissions compared with diesel-powered vehicles. Once operational, the proposed project would generate 10 worker trips and 8 truck trips during Phase I and 10 worker trips and 24 truck trips during Phase II.

The proposed project would not generate energy source emissions as the proposed project would be designed as a stand-alone system with a solar field to supply electric power emissions. The solar field would generate the required electrical demands.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the proposed project would be minimal and would be associated with site maintenance activities.

In addition, the proposed project's composting operation would require the use of off-road equipment, a mobile screen, two loaders, a windrow turner, a water truck, a dump truck, a cover turner, a chipper/grinder, and a conveyor. This equipment would use fossil-based fuels to operate, resulting in off-road source emissions. The loaders, water truck, and dump truck are already in use at the existing Landfill; therefore, the mobile screen, windrow turner, cover turner, chipper/grinder, and conveyor were included in this analysis.

The solar field and batteries would be designed to accommodate operation at night and during periods of minimal sunlight. However, extended periods of rain and/or cloud events and shortened days during winter may result in loss of electricity to operate and aerate the facility and may lead to material wasting. Therefore, Phase II would include a 200 kW diesel emergency backup generator, which was included in CalEEMod as a stationary source of emissions.

Long-term operational emissions associated with the proposed project were calculated using CalEEMod. The annual emissions associated with operation of the proposed project are identified in Table I for VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$.

Table I: Project Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	VOCs	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Phase I						
Phase I Area Sources	0.2	<0.1	<0.1	0.0	0.0	0.0
Phase I Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0
Phase I Mobile Sources	0.1	1.5	0.7	<0.1	0.2	0.1
Phase I Offroad Sources	1.2	12.0	9.5	<0.1	0.6	0.6
Phase I Stationary Sources	0.0	0.0	0.0	0.0	0.0	0.0
Total Phase I Emissions	**1.4**	**13.5**	**10.2**	**<0.1**	**0.8**	**0.7**
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**
Phase II						
Phase II Area Sources	0.2	<0.1	<0.1	0.0	0.0	0.0
Phase II Energy Sources	0.0	0.0	0.0	0.0	0.0	0.0
Phase II Mobile Sources	0.1	4.4	1.5	<0.1	0.4	0.1
Phase II Offroad Sources	0.7	7.0	5.9	<0.1	0.4	0.4
Phase II Stationary Sources	0.1	0.2	0.2	<0.1	<0.1	<0.1
Total Phase II Emissions	**1.1**	**11.6**	**7.6**	**<0.1**	**0.8**	**0.5**
SCAQMD Thresholds	55.0	55.0	550.0	150.0	150.0	55.0
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (November 2021).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

The results shown in Table I indicate the proposed project would not exceed the significance criteria for VOCs, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions during operation of Phase I or Phase II; therefore, the proposed project would not result in a significant effect on regional air quality. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of

any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Localized Significance Analysis. As identified above, the closest sensitive receptor locations to the project site include the single-family residences within the Olinda Village Community, located approximately 1.2 miles southeast of the project site along Lilac Lane. An LST analysis was completed to show the construction and operational impacts conservatively at a distance of 500 meters (1,640 ft) to the nearest sensitive receptors southeast of the project site in SRA 16, based on a 5-acre project size. The results of the LST analysis, summarized in Table J and Table K, indicate that the proposed project would not result in an exceedance of SCAQMD LSTs during project construction or operation. Therefore, the proposed project would not result in the exposure of sensitive receptors to substantial pollutant concentrations.

Table J: Project Localized Construction Emissions

Source (in lbs/day)	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase I				
On-Site Project Emissions	33.7	23.0	9.1	5.4
Localized Significance Threshold	317.0	8,754.0	165.0	95.0
Exceeds?	**No**	**No**	**No**	**No**
Phase II				
On-Site Project Emissions	33.7	23.0	9.1	5.4
Localized Significance Threshold	317.0	8,754.0	165.0	95.0
Exceeds?	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc. (November 2021).
CO = carbon monoxide
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Table K: Project Localized Operational Emissions

Source (in lbs/day)	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase I				
On-Site Project Emissions	12.0	9.6	<1.0	<1.0
Localized Significance Threshold	317.0	8,754.0	40.0	23.0
Exceeds?	**No**	**No**	**No**	**No**
Phase II				
On-Site Project Emissions	7.4	6.1	<1.0	<1.0
Localized Significance Threshold	317.0	8,754.0	40.0	23.0
Exceeds?	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc. (November 2021).
CO = carbon monoxide
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size

Long-Term Microscale (CO Hot Spot) Analysis. Vehicle and truck trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the vicinity of the project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited. Under normal meteorological conditions, it disperses rapidly with distance from

the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients).

Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the La Habra Monitoring Station showed a highest recorded 1-hour concentration of 3.8 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.7 ppm (the State standard is 9 ppm) from 2017 to 2019.

The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Reduced speeds and vehicular congestion at intersections result in increased CO emissions.

Based on the trip generation prepared for the proposed project, the proposed project would generate up to 34 average daily trips, with 4 trips in the AM peak hour and 9 trips in the PM peak hour. As the proposed project would not generate 100 or more AM or PM peak hour trips, the proposed project did not meet the criteria for an evaluation of study area intersection or roadway segment level of service. Therefore, it is assumed that the addition of the proposed project traffic would not create any significant adverse impacts to nearby intersections.

Therefore, given the extremely low level of CO concentrations in the project area and the lack of traffic impacts at any intersections, project-related vehicles are not expected to contribute significantly to CO concentrations exceeding the State or federal CO standards. Because no CO hot spot would occur, as identified in the proposed project, there would be no project-related impacts on CO concentrations.

Health Risk on Nearby Sensitive Receptors

Although the project is not expected to exceed SCAQMD's numeric regional mass daily emission thresholds, this does not in itself constitute a less than significant health impact to the population adjacent to the project site and within the Basin.

SCAQMD's numeric regional thresholds are based in part on Section 180(e) of the CAA. (Please note that the numeric regional mass daily thresholds have not changed since their adoption as part of SCAQMD's *CEQA Air Quality Handbook* published in 1993.) The numeric regional mass daily thresholds are also intended to provide a means of consistency in significance determination within the environmental review process. Notwithstanding, simply exceeding the SCAQMD's numeric regional mass daily thresholds does not constitute a particular health impact to an individual nearby. The reason for this is that the mass daily thresholds are in pounds per day emitted into the air, whereas health effects are determined based on the concentration of emissions in the air at a particular location (e.g., ppm by volume of air, or micrograms per cubic meter [µg/m^3] of air). State

and federal ambient air quality standards were developed to protect the most susceptible population groups from adverse health effects and were established in terms of ppm or µg/m^3 for the applicable emissions.

For this reason, the SCAQMD developed a methodology to assist lead agencies in analyzing localized air quality impacts from a proposed project as they relate to CO, NO_x, $PM_{2.5}$, and PM_{10}. This methodology is collectively referred to as the LSTs. The LSTs differ from the numeric regional mass daily thresholds because the LSTs are based on the amount of emissions generated from a project that is not expected to cause or contribute to an exceedance of the most stringent applicable federal or State AAQS, and are based on the ambient concentrations of the pollutant and the relative distance to the nearest sensitive receptor (SCAQMD performed air dispersion modeling to determine what amount of emissions generated a particular concentration at a particular distance).

This air quality analysis evaluated the project's localized impact to air quality for emissions of CO, NO_x, $PM_{2.5}$, and PM_{10} by comparing the project's on-site emissions to SCAQMD's applicable LSTs (see Tables J and K). As shown in Tables J and K, the project would not result in emissions that exceed SCAQMD's LSTs. Therefore, the project would not be expected to exceed the most stringent applicable federal or State AAQS for emissions of NO_x, $PM_{2.5}$, and PM_{10}. It should be noted that the AAQS were developed to represent levels at which the most susceptible persons (children and the elderly) are protected. In other words, the AAQS are purposefully set low to protect children, elderly, and those with existing respiratory problems.

Furthermore, air quality trends for emissions of NO_x, VOCs, and O_3 (which is a byproduct of NO_X and VOCs) have been trending downward within the Basin even as development has increased over the last several years. Therefore, because the project would not exceed the SCAQMD's applicable numeric thresholds, the project would not result in any Basin-wide increase in health effects.

As noted in the Brief of Amicus Curiae by SCAQMD[1], the SCAQMD has acknowledged that for criteria pollutants it would be extremely difficult, if not impossible, to quantify health impacts for various reasons, including modeling limitations as well as identifying where in the atmosphere air pollutants interact and form. Furthermore, as noted in the Brief of Amicus Curiae by the San Joaquin Valley Air Pollution Control District (SJVAPCD), SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.[2,3]

Additionally, the SCAQMD acknowledges that health effects quantification from O_3, as an example, is correlated with the increases in the ambient level of O_3 in the air (concentration) that an

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1 SCAQMD. 2015. *Amicus Curiae Brief of South Coast Air Quality Management District*, April. Website: www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf (accessed May 2021).

2 This is even true for the scope of the Friant Ranch Project. which includes the construction of approximately 2,500 single and multifamily residential units, a commercial village center, a recreation center, trails, open space, a neighborhood electric vehicle network, parks and parkways, and 250,000 square feet of commercial space on 482 acres.

3 San Joaquin Valley Unified Air Pollution Control District (SJVAPCD). 2015. *Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District*, page 4.

individual person breathes. The SCAQMD goes on to state that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. SCAQMD states that based on its own modeling in SCAQMD's 2012 AQMP, a reduction of 432 tons/864,000 pounds per day (lbs/day) of NO_x and a reduction of 187 tons/374,000 lbs/day of VOCs would reduce O_3 levels at the highest monitored site by only 9 parts per billion. As such, SCAQMD concludes that it is not currently possible to accurately quantify O_3-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations.[1]

To underscore this point, SCAQMD goes on to state that it has only been able to correlate potential health outcomes for very large emissions sources—as part of its rulemaking activity, specifically 6,620 lbs/day of NO_x and 89,180 lbs/day of VOCs were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to O_3.

The proposed project would not generate anywhere near 6,620 lbs/day of NO_x or 89,190 lbs/day of VOC emissions. As shown in Table H, the project would generate a maximum of 33.8 lbs/day of NO_x during construction (0.5 percent of 6,620 lbs/day), and as shown in Table I, would generate a maximum of 13.5 lbs/day of NO_x during operation (0.2 percent of 6,620 lbs/day). The project would also generate a maximum of 3.9 lbs/day of VOC emissions during construction and 1.4 lbs/day of VOC emissions during operations (less than 0.1 percent of 89,190 lbs/day).

Therefore, the project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a Basin-wide level. Further, SJVAPCD acknowledges the same: "…the Air District is simply not equipped to analyze and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area…even for projects with relatively high levels of emissions of criteria pollutant precursor emissions."[2]

Notwithstanding, as previously noted, this air quality analysis does include a site-specific localized impact analysis that does correlate potential project health impacts on a local level to immediately adjacent land uses. The SCAQMD Brief of Amicus Curiae and the SJVAPCD Brief of Amicus Curiae are incorporated by reference into this report and into the environmental documentation for this project, including all references therein.

Unfortunately, current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. For this reason, this section explains in meaningful detail why it is not feasible to provide such an analysis.

Energy Impacts

This section describes potential energy impacts associated with the proposed project.

1 SCAQMD, 2015. op. cit.

2 SJVAPCD. 2015. *Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District*, page 8.

Consumption of Energy Resources

The proposed project would increase the demand for energy through day-to-day operations and fuel consumption associated with project construction.

Construction Energy Usage. Construction of the proposed project would require energy for the manufacture and transportation of construction materials, preparation of the site for site preparation, grading, paving, and architectural coating activities. All or most of this energy would be derived from nonrenewable resources. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. However, construction activities are not anticipated to result in an inefficient use of energy, as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy (i.e., fuel) usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources.

Operational Energy Usage. Energy use consumed by the proposed project would be associated with fuel used for on-site off-road equipment and vehicle trips associated with the project. The project would not consume any electricity or natural gas during operation as the proposed project would be designed as a stand-alone system with a solar field to supply electric power emissions. The solar field would generate the required electrical demands and would be designed to accommodate operation at night and during periods of minimal sunlight. However, extended periods of rain and/or cloud events and shortened days during winter may result in loss of electricity to operate and aerate the facility and may lead to material wasting. Therefore, Phase II would include a 200 kW diesel emergency backup generator.

During Phase I, the proposed project would result in 234 VMT per day or 85,458 VMT per year. The average fuel economy for heavy-heavy-duty trucks in Orange County is 6.6 miles per gallon (mpg) of diesel.[1] Therefore, Phase I would result in the consumption of 12,948 gallons of diesel per year.

During Phase II, the proposed project would result in 443 VMT per day or 161,515 VMT per year. Based on the average fuel economy of 6.6 mpg for heavy-heavy-duty trucks in Orange County, Phase II would result in the consumption of 24,472 gallons of diesel per year.

In addition, the proposed project would use off-road equipment and an emergency backup generator on-site, which would consume diesel. The composting operation of the proposed project would require the use of off-road equipment, a mobile screen, two loaders, a windrow turner, a water truck, a dump truck, a cover turner, a chipper/grinder, and a conveyor. Phase II of the proposed project would also include an emergency backup generator. Such equipment typically uses fossil-based fuels to operate, resulting in off-road source emissions. The loaders, water truck, and dump truck are already in use at the existing Landfill; therefore, the mobile screen, windrow turner, cover turner, chipper/grinder, conveyor, and emergency backup generator were included in this analysis. Fuel consumption of off-road equipment and the emergency backup generator was calculated based on the following equation:

[1] CARB. EMFAC2017 Web Database. Website: https://www.arb.ca.gov/emfac/2017/ (accessed May 2021).

Fuel Consumption = Horsepower * Load Factor * Specific Fuel Consumption

where the specific fuel consumption was assumed as 0.22 kilogram (7.75 ounces) per kW hour for a diesel engine.[1] Table L shows the annual fuel consumption of each type of off-road equipment and the emergency backup generator and the total annual fuel consumption.

Table L: Fuel Consumption of Off-Road Equipment and Generator

Equipment	Quantity	Horsepower	Load Factor	Fuel Consumption (gallons/year)
Phase I				
Mobile Screen	1	99	0.42	4,320
Windrow Turner	1	390	0.42	34,034
Cover Turner	1	76	0.42	3,316
Chipper/Grinder	1	950	0.42	538,887
Conveyor	1	62	0.42	3,517
Total				**99,074**
Phase II				
Mobile Screen	1	99	0.42	4,320
Windrow Turner	1	390	0.42	10,210
Cover Turner	1	76	0.42	3,316
Chipper/Grinder	1	950	0.42	53,887
Conveyor	1	62	0.42	3,517
Generator	1	268	0.73	664
Total				**75,914**

Sources: Compiled by LSA Associates, Inc. (November 2021); *Fuel Consumption and Engine Load Factors of Equipment in Quarrying of Crushed Stone*. (Mario Klanfar, Tomislav Korman, and Trpimir Kujundžić, February 2016).

In total, during Phase I, the delivery truck trips and off-road equipment would consume 112,022 gallons of diesel per year. However, Phase I would only be operational for 6 months, so total diesel consumed during operation of Phase I would be 56,011 gallons of diesel. During operation of Phase II, the delivery truck trips, off-road equipment, and the emergency backup generator would consume 100,386 gallons of diesel per year.

In 2015, vehicles in California consumed 4.2 billion gallons of diesel.[2] Therefore, diesel demand generated by delivery truck trips, off-road equipment, and the emergency backup generator associated with the proposed project would be a minimal fraction of diesel fuel consumption in California. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses, and would not result in the wasteful, inefficient, or unnecessary consumption of fuel. Impacts would be less than significant, and no mitigation would be required.

1 Mario Klanfar, Tomislav Korman, and Trpimir Kujundžić, 2016. *Fuel Consumption and Engine Load Factors of Equipment in Quarrying of Crushed Stone*. February.

2 CEC. 2017. California Diesel Data, Facts, and Statistics. Website: https://www.energy.ca.gov/almanac/transportation_data/diesel.html (accessed May 2021).

Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

The CEC approved the *2020 Integrated Energy Policy Report* in March 2021.[1] The *2020 Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, once operational, the proposed project would not generate energy usage as the proposed project would be designed as a stand-alone system with a solar field to supply electric power emissions. The solar field would generate the required electrical demands. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's *2020 Integrated Energy Policy Report*.

Greenhouse Gas Emissions Impacts

This section describes potential GHG impacts associated with the proposed project.

Generation of Greenhouse Gas Emissions

The proposed project would generate GHG emissions during both construction and operational phases of the proposed project, as discussed below.

Construction Greenhouse Gas Emissions. During construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

As indicated above, the SCAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. The SCAQMD then requires the construction GHG emissions to be amortized over the life of the project, defined as 30 years, added to the operational emissions, and compared to the applicable interim GHG significance threshold tier.

Construction activities produce combustion GHG emissions from various sources (e.g., utility engines and motor vehicles transporting the construction crew). As discussed previously in the Project Description, the facility would be developed in two phases: Phase I – Open Windrow Composting and Phase II – CASP Composting. Construction of Phase I would occur for approximately three months and construction of Phase II would also occur for approximately three months. Table M presents the annual CO_2e emissions for each of the planned construction phases based on the results from CalEEMod.

[1] CEC. 2020. *2020 Integrated Energy Policy Report*. Docket No. 20-IEPR-01.

Table M: Project Construction Greenhouse Gas Emissions

Construction Phase	Total Emissions (MT/yr)			
	CO_2	CH_4	N_2O	CO_2e
Phase I				
Phase I Construction Emissions	67.3	<0.1	0.0	67.8
Amortized over 30 years	2.2	<0.1	0.0	2.3
Phase II				
Phase II Construction Emissions	92.9	<0.1	0.0	93.6
Amortized over 30 years	3.1	<0.1	0.0	3.1

Source: LSA Associates, Inc. (November 2021).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide

Operational Greenhouse Gas Emissions. Long-term GHG emissions are typically generated from mobile and area sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions include project-generated vehicle trips to and from a project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site. Energy source emissions are typically generated at off-site utility providers as a result of increased electricity demand generated by a project. Waste source emissions are typically generated from land use development projects that generate waste by land filling and other methods of disposal related to transporting and managing project-generated waste. The proposed project would allow for composting of green waste which would reduce waste emissions when compared to landfilling of waste. Water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment. Water to the project would be provided by existing water trucks at the Landfill.

GHG emissions were estimated using CalEEMod. Table N shows the calculated GHG emissions for the proposed project. Additional calculation details are attached.

As discussed above, according to SCAQMD, a project would have less than significant GHG emissions if it would result in operational-related GHG emissions of less than 2,760 MT CO_2e per year. Based on the analysis results, Phase I of the proposed project would result in 410.9 MT CO_2e per year, and Phase II would result in 399.0 MT CO_2e per year, which would both be below the numeric threshold of 2,760 MT CO_2e per year. Therefore, operation of the proposed project would not generate significant GHG emissions that would have a significant effect on the environment.

Table N: Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/yr)			
	Total CO_2	CH_4	N_2O	CO_2e
Phase I Emissions				
Phase I Area Sources	<0.1	0.0	0.0	<0.1
Phase I Energy Sources	0.0	0.0	0.0	0.0
Phase I Mobile Sources	89.9	<0.1	0.0	90.1
Phase I Offroad Sources	315.9	0.1	0.0	318.4
Phase I Stationary Sources	0.0	0.0	0.0	0.0
Phase I Waste Sources	0.0	0.0	0.0	0.0
Phase I Water Sources	0.0	0.0	0.0	0.0
Phase I Operational Emissions				**408.6**
Phase I Amortized Construction Emissions				2.3
Total Phase I Emissions				**410.9**
SCAQMD Tier 3 GHG Numerical Screening Threshold				**2,760.0**
Exceedance?				**No**
Phase II Emissions				
Phase II Area Sources	<0.1	0.0	0.0	<0.1
Phase II Energy Sources	0.0	0.0	0.0	0.0
Phase II Mobile Sources	240.1	<0.1	0.0	240.7
Phase II Offroad Sources	148.9	<0.1	0.0	150.1
Phase II Stationary Sources	5.1	<0.1	0.0	5.1
Phase II Waste Sources	0.0	0.0	0.0	0.0
Phase II Water Sources	0.0	0.0	0.0	0.0
Phase II Operational Emissions				**395.9**
Phase II Amortized Construction Emissions				3.1
Total Phase II Emissions				**399.0**
SCAQMD Tier 3 GHG Numerical Screening Threshold				**2,760.0**
Exceedance?				**No**

Source: LSA Associates, Inc. (November 2021).
Note: Numbers in the table may not appear to add up correctly due to rounding of all numbers to two significant digits.
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
MT/yr = metric tons per year
N_2O = nitrous oxide

Consistency with Greenhouse Gas Reduction Plans

CARB Scoping Plan. California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. AB 32 is aimed at reducing GHG emissions to 1990 levels by 2020. AB 32 requires CARB both to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to GCC. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, market-based mechanisms (e.g., a cap-and-trade system), and an AB 32 implementation fee to fund the program.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by SB 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reduction target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels.

The companion bill to SB 32 (i.e., AB 197) provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 that is intended to provide easier public access to air emissions data collected by CARB was posted in December 2016.

As identified above, the AB 32 Scoping Plan contains GHG reduction measures that work toward reducing GHG emissions, consistent with the targets set by AB 32 and EO B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts (including new technologies and new policy and implementation mechanisms), and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The proposed project would not generate energy source emissions as the proposed project would be designed as a stand-alone system with a solar field to supply electric power emissions. Therefore, the proposed project would not conflict with any of the energy efficient measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. The proposed project would require watering o maintain moisture content; however, water would be provided by existing water trucks at the Landfill. The proposed project is not expected to result in significant water usage. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emission reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. Vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

Accordingly, as demonstrated above, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals identified in AB 32, the AB 32 Scoping Plan, EO B-30-15, SB 32, and AB 197.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy. SCAG's 2020–2045 RTP/SCS was adopted September 3, 2020. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high-quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The core vision in the 2020–2045 RTP/SCS is to better manage the existing transportation system through design management strategies, integrate land use decisions and technological advancements, create complete streets that are safe to all roadway users, preserve the transportation system, and expand transit and foster development in transit-

oriented communities. The 2020–2045 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as a forecasted development pattern that is generally consistent with regional-level General Plan data. The forecasted development pattern, when integrated with the financially constrained transportation investments identified in the 2020–2045 RTP/SCS, would reach the regional target of reducing GHG emissions from autos and light-duty trucks by 8 percent per capita by 2020 and 19 percent by 2035 (compared to 2005 levels). The 2020–2045 RTP/SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the 2020–2045 RTP/SCS but provides incentives for consistency for governments and developers.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emission reduction targets. The proposed project would not conflict with the stated goals of the RTP/SCS; therefore, the proposed project would not interfere with SCAG's ability to achieve the region's GHG reduction targets at 8 percent below 2005 per capita emissions levels by 2020 and 19 percent below 2005 per capita emissions levels by 2035, and it can be assumed that regional mobile emissions will decrease in line with the goals of the RTP/SCS. Furthermore, the proposed project is not regionally significant per *State CEQA Guidelines* Section 15206, and, as such, it would not conflict with the SCAG RTP/SCS targets, since those targets were established and are applicable on a regional level.

The proposed project would implement a green waste composting operation at the Olinda Alpha Landfill consistent with State requirements for solid waste diversion. Based on the nature of the proposed project, it is anticipated that implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. Therefore, the proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHG emissions.

CONCLUSION

Based on the analysis presented above, construction and operation of the proposed project would not result in the generation of criteria air pollutants that would exceed SCAQMD thresholds of significance. Compliance with SCAQMD Rule 403, Fugitive Dust, would further reduce construction dust impacts. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The project would also not result in objectionable odors affecting a substantial number of people. In addition, the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation and would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. GHG emissions released during construction and operation of the project are estimated to be lower than significance thresholds and would not be cumulatively considerable. The project would also be consistent with the 2016 AQMP. The proposed project would generally be consistent with both the CARB Scoping Plan and the SCAG's RTP/SCS.

Attachment: CalEEMod Output Sheets

CalEEMod Output Sheets

Valencia Greenery - Phase I - Open Windrow Composting

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.00	Acre	9.00	392,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The Valencia Greenery composting operation will be developed in an approximate 9-acre pad with a crushed asphalt base.

Construction Phase - Phase I construction tentative start: 3/22/22 and end 5/25/22.

Grading - The project would grade 15.3 acres.

Vehicle Trips - Trip rate based on trip generation prepared for the proposed project.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403 measures.

Operational Off-Road Equipment - Heavy equipment will include a mobile screen (99 HP), windrow turner (390 HP), a cover turner (76 HP), a chipper/grinder (950 HP), and a conveyor (62 HP).

Fleet Mix - Revised fleet mix based on trip generation (10 worker trips and 8 delivery trucks).

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Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	10.00	14.00
tblFleetMix	HHD	0.02	0.45
tblFleetMix	LDA	0.56	0.27
tblFleetMix	LDT1	0.04	0.14
tblFleetMix	LDT2	0.21	0.14
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7950e-003	0.00
tblFleetMix	MCY	4.9260e-003	0.00
tblFleetMix	MDV	0.11	0.00

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tblFleetMix	MH	9.3400e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.7470e-003	0.00
tblFleetMix	SBUS	5.9400e-004	0.00
tblFleetMix	UBUS	1.5420e-003	0.00
tblGrading	AcresOfGrading	12.50	15.30
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	99.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	390.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	76.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	950.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	62.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	10.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblVehicleTrips	CC_TTP	0.00	28.00
tblVehicleTrips	CNW_TTP	0.00	13.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	0.00	2.00

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					
2022	0.0641	0.5376	0.3971	7.6000e-004	0.2140	0.0254	0.2393	0.1129	0.0233	0.1362	0.0000	67.2859	67.2859	0.0208	0.0000	67.8050
Maximum	**0.0641**	**0.5376**	**0.3971**	**7.6000e-004**	**0.2140**	**0.0254**	**0.2393**	**0.1129**	**0.0233**	**0.1362**	**0.0000**	**67.2859**	**67.2859**	**0.0208**	**0.0000**	**67.8050**

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					
2022	0.0379	0.6458	0.4773	7.6000e-004	0.0985	0.0190	0.1175	0.0514	0.0190	0.0704	0.0000	67.2859	67.2859	0.0208	0.0000	67.8049
Maximum	**0.0379**	**0.6458**	**0.4773**	**7.6000e-004**	**0.0985**	**0.0190**	**0.1175**	**0.0514**	**0.0190**	**0.0704**	**0.0000**	**67.2859**	**67.2859**	**0.0208**	**0.0000**	**67.8049**

	ROG	NOx	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	**40.84**	**-20.13**	**-20.19**	**0.00**	**53.95**	**25.17**	**50.89**	**54.47**	**18.65**	**48.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-22-2022	6-21-2022	0.5579	0.6338
		Highest	0.5579	0.6338

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.6200e-003	0.2768	0.1190	9.0000e-004	0.0340	8.0000e-004	0.0348	9.1600e-003	7.6000e-004	9.9200e-003	0.0000	89.9067	89.9067	8.5100e-003	0.0000	90.1194
Offroad	0.1833	1.8309	1.4562	3.6000e-003		0.0931	0.0931		0.0856	0.0856	0.0000	315.8932	315.8932	0.1022	0.0000	318.4474
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2237**	**2.1077**	**1.5752**	**4.5000e-003**	**0.0340**	**0.0939**	**0.1278**	**9.1600e-003**	**0.0864**	**0.0955**	**0.0000**	**405.8002**	**405.8002**	**0.1107**	**0.0000**	**408.5670**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	9.6200e-003	0.2768	0.1190	9.0000e-004	0.0340	8.0000e-004	0.0348	9.1600e-003	7.6000e-004	9.9200e-003	0.0000	89.9067	89.9067	8.5100e-003	0.0000	90.1194
Offroad	0.1833	1.8309	1.4562	3.6000e-003		0.0931	0.0931		0.0856	0.0856	0.0000	315.8932	315.8932	0.1022	0.0000	318.4474
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.2237**	**2.1077**	**1.5752**	**4.5000e-003**	**0.0340**	**0.0939**	**0.1278**	**9.1600e-003**	**0.0864**	**0.0955**	**0.0000**	**405.8002**	**405.8002**	**0.1107**	**0.0000**	**408.5670**

	ROG	NOx	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

Valencia Greenery - Phase I - Open Windrow Composting - Orange County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/22/2022	4/8/2022	5	14	
2	Grading	Grading	4/11/2022	5/13/2022	5	25	
3	Paving	Paving	5/16/2022	5/25/2022	5	8	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15.3

Acres of Paving: 9

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1265	0.0000	0.1265	0.0695	0.0000	0.0695	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.2316	0.1379	2.7000e-004		0.0113	0.0113		0.0104	0.0104	0.0000	23.4076	23.4076	7.5700e-003	0.0000	23.5968
Total	**0.0222**	**0.2316**	**0.1379**	**2.7000e-004**	**0.1265**	**0.0113**	**0.1378**	**0.0695**	**0.0104**	**0.0799**	**0.0000**	**23.4076**	**23.4076**	**7.5700e-003**	**0.0000**	**23.5968**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.8000e-004	3.3700e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.1129	1.1129	2.0000e-005	0.0000	1.1134
Total	**4.4000e-004**	**2.8000e-004**	**3.3700e-003**	**1.0000e-005**	**1.3800e-003**	**1.0000e-005**	**1.3900e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.1129**	**1.1129**	**2.0000e-005**	**0.0000**	**1.1134**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0569	0.0000	0.0569	0.0313	0.0000	0.0313	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4700e-003	0.2361	0.1607	2.7000e-004		6.6200e-003	6.6200e-003		6.6200e-003	6.6200e-003	0.0000	23.4076	23.4076	7.5700e-003	0.0000	23.5968
Total	**8.4700e-003**	**0.2361**	**0.1607**	**2.7000e-004**	**0.0569**	**6.6200e-003**	**0.0635**	**0.0313**	**6.6200e-003**	**0.0379**	**0.0000**	**23.4076**	**23.4076**	**7.5700e-003**	**0.0000**	**23.5968**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.8000e-004	3.3700e-003	1.0000e-005	1.3800e-003	1.0000e-005	1.3900e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.1129	1.1129	2.0000e-005	0.0000	1.1134
Total	**4.4000e-004**	**2.8000e-004**	**3.3700e-003**	**1.0000e-005**	**1.3800e-003**	**1.0000e-005**	**1.3900e-003**	**3.7000e-004**	**1.0000e-005**	**3.8000e-004**	**0.0000**	**1.1129**	**1.1129**	**2.0000e-005**	**0.0000**	**1.1134**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0834	0.0000	0.0834	0.0423	0.0000	0.0423	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0244	0.2607	0.1909	3.7000e-004		0.0118	0.0118		0.0108	0.0108	0.0000	32.5685	32.5685	0.0105	0.0000	32.8318
Total	**0.0244**	**0.2607**	**0.1909**	**3.7000e-004**	**0.0834**	**0.0118**	**0.0952**	**0.0423**	**0.0108**	**0.0531**	**0.0000**	**32.5685**	**32.5685**	**0.0105**	**0.0000**	**32.8318**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	4.2000e-004	5.0200e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6561	1.6561	3.0000e-005	0.0000	1.6569
Total	**6.5000e-004**	**4.2000e-004**	**5.0200e-003**	**2.0000e-005**	**2.0600e-003**	**1.0000e-005**	**2.0700e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.6561**	**1.6561**	**3.0000e-005**	**0.0000**	**1.6569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0375	0.0000	0.0375	0.0190	0.0000	0.0190	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.3285	0.2374	3.7000e-004		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	32.5684	32.5684	0.0105	0.0000	32.8318
Total	**0.0126**	**0.3285**	**0.2374**	**3.7000e-004**	**0.0375**	**9.6600e-003**	**0.0472**	**0.0190**	**9.6600e-003**	**0.0287**	**0.0000**	**32.5684**	**32.5684**	**0.0105**	**0.0000**	**32.8318**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	4.2000e-004	5.0200e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6561	1.6561	3.0000e-005	0.0000	1.6569
Total	**6.5000e-004**	**4.2000e-004**	**5.0200e-003**	**2.0000e-005**	**2.0600e-003**	**1.0000e-005**	**2.0700e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.6561**	**1.6561**	**3.0000e-005**	**0.0000**	**1.6569**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.4100e-003	0.0445	0.0583	9.0000e-005		2.2700e-003	2.2700e-003		2.0900e-003	2.0900e-003	0.0000	8.0110	8.0110	2.5900e-003	0.0000	8.0758
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0162**	**0.0445**	**0.0583**	**9.0000e-005**		**2.2700e-003**	**2.2700e-003**		**2.0900e-003**	**2.0900e-003**	**0.0000**	**8.0110**	**8.0110**	**2.5900e-003**	**0.0000**	**8.0758**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.3000e-004	1.6100e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5299	0.5299	1.0000e-005	0.0000	0.5302
Total	**2.1000e-004**	**1.3000e-004**	**1.6100e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.7000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5299**	**0.5299**	**1.0000e-005**	**0.0000**	**0.5302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.7200e-003	0.0805	0.0692	9.0000e-005		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	8.0110	8.0110	2.5900e-003	0.0000	8.0758
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0155**	**0.0805**	**0.0692**	**9.0000e-005**		**2.6700e-003**	**2.6700e-003**		**2.6700e-003**	**2.6700e-003**	**0.0000**	**8.0110**	**8.0110**	**2.5900e-003**	**0.0000**	**8.0758**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.3000e-004	1.6100e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5299	0.5299	1.0000e-005	0.0000	0.5302
Total	**2.1000e-004**	**1.3000e-004**	**1.6100e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.7000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5299**	**0.5299**	**1.0000e-005**	**0.0000**	**0.5302**

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	9.6200e-003	0.2768	0.1190	9.0000e-004	0.0340	8.0000e-004	0.0348	9.1600e-003	7.6000e-004	9.9200e-003	0.0000	89.9067	89.9067	8.5100e-003	0.0000	90.1194
Unmitigated	9.6200e-003	0.2768	0.1190	9.0000e-004	0.0340	8.0000e-004	0.0348	9.1600e-003	7.6000e-004	9.9200e-003	0.0000	89.9067	89.9067	8.5100e-003	0.0000	90.1194

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	18.00	18.00	18.00	85,458	85,458
Total	18.00	18.00	18.00	85,458	85,458

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
Other Asphalt Surfaces	16.60	8.40	6.90	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.270000	0.140000	0.140000	0.000000	0.000000	0.000000	0.000000	0.450000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Unmitigated	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Total	**0.0308**	**0.0000**	**1.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Total	**0.0308**	**0.0000**	**1.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	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			
Other Asphalt Surfaces	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			
Other Asphalt Surfaces	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			
Other Asphalt Surfaces	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
Other Construction Equipment	1	5.00	306	99	0.42	Diesel
Other Construction Equipment	1	10.00	306	390	0.42	Diesel
Other Construction Equipment	1	5.00	306	76	0.42	Diesel
Other Construction Equipment	1	6.50	306	950	0.42	Diesel
Other Construction Equipment	1	6.50	306	62	0.42	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Other Construction Equipment	0.1833	1.8309	1.4562	3.6000e-003		0.0931	0.0931		0.0856	0.0856	0.0000	315.8932	315.8932	0.1022	0.0000	318.4474
Total	**0.1833**	**1.8309**	**1.4562**	**3.6000e-003**		**0.0931**	**0.0931**		**0.0856**	**0.0856**	**0.0000**	**315.8932**	**315.8932**	**0.1022**	**0.0000**	**318.4474**

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

Valencia Greenery - Phase I - Open Windrow Composting

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.00	Acre	9.00	392,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The Valencia Greenery composting operation will be developed in an approximate 9-acre pad with a crushed asphalt base.

Construction Phase - Phase I construction tentative start: 3/22/22 and end 5/25/22.

Grading - The project would grade 15.3 acres.

Vehicle Trips - Trip rate based on trip generation prepared for the proposed project.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403 measures.

Operational Off-Road Equipment - Heavy equipment will include a mobile screen (99 HP), windrow turner (390 HP), a cover turner (76 HP), a chipper/grinder (950 HP), and a conveyor (62 HP).

Fleet Mix - Revised fleet mix based on trip generation (10 worker trips and 8 delivery trucks).

Valencia Greenery - Phase I - Open Windrow Composting - Orange County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	10.00	14.00
tblFleetMix	HHD	0.02	0.45
tblFleetMix	LDA	0.56	0.27
tblFleetMix	LDT1	0.04	0.14
tblFleetMix	LDT2	0.21	0.14
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7950e-003	0.00
tblFleetMix	MCY	4.9260e-003	0.00
tblFleetMix	MDV	0.11	0.00

tblFleetMix	MH	9.3400e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.7470e-003	0.00
tblFleetMix	SBUS	5.9400e-004	0.00
tblFleetMix	UBUS	1.5420e-003	0.00
tblGrading	AcresOfGrading	12.50	15.30
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	99.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	390.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	76.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	950.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	62.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	10.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblVehicleTrips	CC_TTP	0.00	28.00
tblVehicleTrips	CNW_TTP	0.00	13.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	0.00	2.00

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					
2022	4.1015	33.1191	20.2080	0.0399	18.2675	1.6139	19.8813	9.9840	1.4847	11.4688	0.0000	3,868.4381	3,868.4381	1.1958	0.0000	3,898.3338
Maximum	**4.1015**	**33.1191**	**20.2080**	**0.0399**	**18.2675**	**1.6139**	**19.8813**	**9.9840**	**1.4847**	**11.4688**	**0.0000**	**3,868.4381**	**3,868.4381**	**1.1958**	**0.0000**	**3,898.3338**

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					
2022	3.9297	33.7570	23.4703	0.0399	8.3310	0.9474	9.2785	4.5222	0.9473	5.4695	0.0000	3,868.4381	3,868.4381	1.1958	0.0000	3,898.3338
Maximum	**3.9297**	**33.7570**	**23.4703**	**0.0399**	**8.3310**	**0.9474**	**9.2785**	**4.5222**	**0.9473**	**5.4695**	**0.0000**	**3,868.4381**	**3,868.4381**	**1.1958**	**0.0000**	**3,898.3338**

	ROG	NOx	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	**4.19**	**-1.93**	**-16.14**	**0.00**	**54.39**	**41.29**	**53.33**	**54.71**	**36.19**	**52.31**	**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	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0532	1.4873	0.6550	5.0400e-003	0.1900	4.3400e-003	0.1943	0.0511	4.1300e-003	0.0553		552.9593	552.9593	0.0510		554.2350
Offroad	1.1980	11.9668	9.5173	0.0235		0.6082	0.6082		0.5595	0.5595		2,275.8999	2,275.8999	0.7361		2,294.3017
Total	**1.4200**	**13.4541**	**10.1732**	**0.0286**	**0.1900**	**0.6125**	**0.8025**	**0.0511**	**0.5637**	**0.6148**		**2,828.8612**	**2,828.8612**	**0.7871**	**0.0000**	**2,848.5388**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0532	1.4873	0.6550	5.0400e-003	0.1900	4.3400e-003	0.1943	0.0511	4.1300e-003	0.0553		552.9593	552.9593	0.0510		554.2350
Offroad	1.1980	11.9668	9.5173	0.0235		0.6082	0.6082		0.5595	0.5595		2,275.8999	2,275.8999	0.7361		2,294.3017
Total	**1.4200**	**13.4541**	**10.1732**	**0.0286**	**0.1900**	**0.6125**	**0.8025**	**0.0511**	**0.5637**	**0.6148**		**2,828.8612**	**2,828.8612**	**0.7871**	**0.0000**	**2,848.5388**

	ROG	NOx	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	3/22/2022	4/8/2022	5	14	
2	Grading	Grading	4/11/2022	5/13/2022	5	25	
3	Paving	Paving	5/16/2022	5/25/2022	5	8	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15.3

Acres of Paving: 9

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0356	0.5103	1.8300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		182.3762	182.3762	3.6800e-003		182.4683
Total	**0.0614**	**0.0356**	**0.5103**	**1.8300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**182.3762**	**182.3762**	**3.6800e-003**		**182.4683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**1.2097**	**33.7214**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0356	0.5103	1.8300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		182.3762	182.3762	3.6800e-003		182.4683
Total	**0.0614**	**0.0356**	**0.5103**	**1.8300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**182.3762**	**182.3762**	**3.6800e-003**		**182.4683**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6711	0.0000	6.6711	3.3803	0.0000	3.3803			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.6711**	**0.9409**	**7.6120**	**3.3803**	**0.8656**	**4.2459**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0020	0.0000	3.0020	1.5211	0.0000	1.5211			0.0000			0.0000
Off-Road	1.0093	26.2791	18.9906	0.0297		0.7725	0.7725		0.7725	0.7725	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.0093**	**26.2791**	**18.9906**	**0.0297**	**3.0020**	**0.7725**	**3.7745**	**1.5211**	**0.7725**	**2.2936**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	2.9475					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0503**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	2.9475					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.8786**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

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	0.0532	1.4873	0.6550	5.0400e-003	0.1900	4.3400e-003	0.1943	0.0511	4.1300e-003	0.0553		552.9593	552.9593	0.0510		554.2350
Unmitigated	0.0532	1.4873	0.6550	5.0400e-003	0.1900	4.3400e-003	0.1943	0.0511	4.1300e-003	0.0553		552.9593	552.9593	0.0510		554.2350

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	18.00	18.00	18.00	85,458	85,458
Total	18.00	18.00	18.00	85,458	85,458

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
Other Asphalt Surfaces	16.60	8.40	6.90	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.270000	0.140000	0.140000	0.000000	0.000000	0.000000	0.000000	0.450000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Other Construction Equipment	1	5.00	306	99	0.42	Diesel
Other Construction Equipment	1	10.00	306	390	0.42	Diesel
Other Construction Equipment	1	5.00	306	76	0.42	Diesel
Other Construction Equipment	1	6.50	306	950	0.42	Diesel
Other Construction Equipment	1	6.50	306	62	0.42	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Other Construction Equipment	1.1980	11.9668	9.5173	0.0235		0.6082	0.6082		0.5595	0.5595		2,275.8999	2,275.8999	0.7361		2,294.3017
Total	**1.1980**	**11.9668**	**9.5173**	**0.0235**		**0.6082**	**0.6082**		**0.5595**	**0.5595**		**2,275.8999**	**2,275.8999**	**0.7361**		**2,294.3017**

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

Valencia Greenery - Phase I - Open Windrow Composting

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.00	Acre	9.00	392,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - The Valencia Greenery composting operation will be developed in an approximate 9-acre pad with a crushed asphalt base.

Construction Phase - Phase I construction tentative start: 3/22/22 and end 5/25/22.

Grading - The project would grade 15.3 acres.

Vehicle Trips - Trip rate based on trip generation prepared for the proposed project.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403 measures.

Operational Off-Road Equipment - Heavy equipment will include a mobile screen (99 HP), windrow turner (390 HP), a cover turner (76 HP), a chipper/grinder (950 HP), and a conveyor (62 HP).

Fleet Mix - Revised fleet mix based on trip generation (10 worker trips and 8 delivery trucks).

Valencia Greenery - Phase I - Open Windrow Composting - Orange County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	10.00	14.00
tblFleetMix	HHD	0.02	0.45
tblFleetMix	LDA	0.56	0.27
tblFleetMix	LDT1	0.04	0.14
tblFleetMix	LDT2	0.21	0.14
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7950e-003	0.00
tblFleetMix	MCY	4.9260e-003	0.00
tblFleetMix	MDV	0.11	0.00

tblFleetMix	MH	9.3400e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.7470e-003	0.00
tblFleetMix	SBUS	5.9400e-004	0.00
tblFleetMix	UBUS	1.5420e-003	0.00
tblGrading	AcresOfGrading	12.50	15.30
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	99.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	390.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	76.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	950.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	62.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	10.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblVehicleTrips	CC_TTP	0.00	28.00
tblVehicleTrips	CNW_TTP	0.00	13.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	0.00	2.00

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					
2022	4.1084	33.1227	20.1679	0.0398	18.2675	1.6139	19.8813	9.9840	1.4847	11.4688	0.0000	3,858.6780	3,858.6780	1.1956	0.0000	3,888.5688
Maximum	**4.1084**	**33.1227**	**20.1679**	**0.0398**	**18.2675**	**1.6139**	**19.8813**	**9.9840**	**1.4847**	**11.4688**	**0.0000**	**3,858.6780**	**3,858.6780**	**1.1956**	**0.0000**	**3,888.5688**

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					
2022	3.9366	33.7605	23.4302	0.0398	8.3310	0.9474	9.2785	4.5222	0.9473	5.4695	0.0000	3,858.6780	3,858.6780	1.1956	0.0000	3,888.5688
Maximum	**3.9366**	**33.7605**	**23.4302**	**0.0398**	**8.3310**	**0.9474**	**9.2785**	**4.5222**	**0.9473**	**5.4695**	**0.0000**	**3,858.6780**	**3,858.6780**	**1.1956**	**0.0000**	**3,888.5688**

	ROG	NOx	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	**4.18**	**-1.93**	**-16.18**	**0.00**	**54.39**	**41.29**	**53.33**	**54.71**	**36.19**	**52.31**	**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	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0541	1.4934	0.6640	4.9000e-003	0.1900	4.4400e-003	0.1944	0.0511	4.2300e-003	0.0554		537.9468	537.9468	0.0524		539.2569
Offroad	1.1980	11.9668	9.5173	0.0235		0.6082	0.6082		0.5595	0.5595		2,275.8999	2,275.8999	0.7361		2,294.3017
Total	**1.4209**	**13.4602**	**10.1822**	**0.0284**	**0.1900**	**0.6126**	**0.8026**	**0.0511**	**0.5638**	**0.6149**		**2,813.8487**	**2,813.8487**	**0.7885**	**0.0000**	**2,833.5607**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0541	1.4934	0.6640	4.9000e-003	0.1900	4.4400e-003	0.1944	0.0511	4.2300e-003	0.0554		537.9468	537.9468	0.0524		539.2569
Offroad	1.1980	11.9668	9.5173	0.0235		0.6082	0.6082		0.5595	0.5595		2,275.8999	2,275.8999	0.7361		2,294.3017
Total	**1.4209**	**13.4602**	**10.1822**	**0.0284**	**0.1900**	**0.6126**	**0.8026**	**0.0511**	**0.5638**	**0.6149**		**2,813.8487**	**2,813.8487**	**0.7885**	**0.0000**	**2,833.5607**

	ROG	NOx	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	3/22/2022	4/8/2022	5	14	
2	Grading	Grading	4/11/2022	5/13/2022	5	25	
3	Paving	Paving	5/16/2022	5/25/2022	5	8	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15.3

Acres of Paving: 9

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0697	0.0391	0.4701	1.7300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		172.6162	172.6162	3.4800e-003		172.7033
Total	**0.0697**	**0.0391**	**0.4701**	**1.7300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**172.6162**	**172.6162**	**3.4800e-003**		**172.7033**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**1.2097**	**33.7214**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0697	0.0391	0.4701	1.7300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		172.6162	172.6162	3.4800e-003		172.7033
Total	**0.0697**	**0.0391**	**0.4701**	**1.7300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**172.6162**	**172.6162**	**3.4800e-003**		**172.7033**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6711	0.0000	6.6711	3.3803	0.0000	3.3803			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.6711**	**0.9409**	**7.6120**	**3.3803**	**0.8656**	**4.2459**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0020	0.0000	3.0020	1.5211	0.0000	1.5211			0.0000			0.0000
Off-Road	1.0093	26.2791	18.9906	0.0297		0.7725	0.7725		0.7725	0.7725	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.0093**	**26.2791**	**18.9906**	**0.0297**	**3.0020**	**0.7725**	**3.7745**	**1.5211**	**0.7725**	**2.2936**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	2.9475					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**4.0503**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	2.9475					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.8786**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

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	0.0541	1.4934	0.6640	4.9000e-003	0.1900	4.4400e-003	0.1944	0.0511	4.2300e-003	0.0554		537.9468	537.9468	0.0524		539.2569
Unmitigated	0.0541	1.4934	0.6640	4.9000e-003	0.1900	4.4400e-003	0.1944	0.0511	4.2300e-003	0.0554		537.9468	537.9468	0.0524		539.2569

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	18.00	18.00	18.00	85,458	85,458
Total	18.00	18.00	18.00	85,458	85,458

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
Other Asphalt Surfaces	16.60	8.40	6.90	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.270000	0.140000	0.140000	0.000000	0.000000	0.000000	0.000000	0.450000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Other Construction Equipment	1	5.00	306	99	0.42	Diesel
Other Construction Equipment	1	10.00	306	390	0.42	Diesel
Other Construction Equipment	1	5.00	306	76	0.42	Diesel
Other Construction Equipment	1	6.50	306	950	0.42	Diesel
Other Construction Equipment	1	6.50	306	62	0.42	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Other Construction Equipment	1.1980	11.9668	9.5173	0.0235		0.6082	0.6082		0.5595	0.5595		2,275.8999	2,275.8999	0.7361		2,294.3017
Total	**1.1980**	**11.9668**	**9.5173**	**0.0235**		**0.6082**	**0.6082**		**0.5595**	**0.5595**		**2,275.8999**	**2,275.8999**	**0.7361**		**2,294.3017**

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

Valencia Greenery - Phase II - CASP Composting

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.00	Acre	9.00	392,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Valencia Greenery - Phase II - CASP Composting - Orange County, Annual

Project Characteristics -

Land Use - The Valencia Greenery composting operation will be developed in an approximate 9-acre pad with a crushed asphalt base.

Construction Phase - Phase II construction tentative start: 8/24/22 and end 11/24/22.

Grading - The project would grade 15.3 acres.

Vehicle Trips - Trip rate based on trip generation prepared for the proposed project.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403 measures.

Operational Off-Road Equipment - Heavy equipment will include a mobile screen (99 HP), windrow turner (390 HP), a cover turner (76 HP), a chipper/grinder (950 HP), and a conveyor (62 HP).

Fleet Mix - Revised fleet mix based on trip generation (10 worker trips and 24 delivery trucks).

Stationary Sources - Emergency Generators and Fire Pumps - The proposed project would be powered by solar and would include a 268 kW backup generator. Assuming the generator would run 50 hours per year.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

Valencia Greenery - Phase II - CASP Composting - Orange County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	19.00
tblConstructionPhase	NumDays	10.00	18.00
tblFleetMix	HHD	0.02	0.71
tblFleetMix	LDA	0.56	0.15
tblFleetMix	LDT1	0.04	0.07
tblFleetMix	LDT2	0.21	0.07
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7950e-003	0.00
tblFleetMix	MCY	4.9260e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	9.3400e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.7470e-003	0.00
tblFleetMix	SBUS	5.9400e-004	0.00
tblFleetMix	UBUS	1.5420e-003	0.00
tblGrading	AcresOfGrading	15.00	15.30
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	99.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	390.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	76.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	950.00

tblOperationalOffRoadEquipment	OperHorsePower	172.00	62.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	3.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	268.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TTP	0.00	28.00
tblVehicleTrips	CNW_TTP	0.00	13.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	3.78
tblVehicleTrips	SU_TR	0.00	3.78
tblVehicleTrips	WD_TR	0.00	3.78

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					
2022	0.0819	0.7175	0.5591	1.0600e-003	0.2669	0.0341	0.3009	0.1415	0.0313	0.1728	0.0000	92.8805	92.8805	0.0286	0.0000	93.5960
Maximum	**0.0819**	**0.7175**	**0.5591**	**1.0600e-003**	**0.2669**	**0.0341**	**0.3009**	**0.1415**	**0.0313**	**0.1728**	**0.0000**	**92.8805**	**92.8805**	**0.0286**	**0.0000**	**93.5960**

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					
2022	0.0485	0.8900	0.6700	1.0600e-003	0.1233	0.0265	0.1498	0.0645	0.0265	0.0910	0.0000	92.8804	92.8804	0.0286	0.0000	93.5959
Maximum	**0.0485**	**0.8900**	**0.6700**	**1.0600e-003**	**0.1233**	**0.0265**	**0.1498**	**0.0645**	**0.0265**	**0.0910**	**0.0000**	**92.8804**	**92.8804**	**0.0286**	**0.0000**	**93.5959**

	ROG	NOx	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	**40.75**	**-24.04**	**-19.84**	**0.00**	**53.80**	**22.25**	**50.23**	**54.40**	**15.51**	**47.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-24-2022	9-30-2022	0.4097	0.4175
		Highest	0.4097	0.4175

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0241	0.8182	0.2681	2.3800e-003	0.0666	2.1500e-003	0.0687	0.0181	2.0500e-003	0.0201	0.0000	240.0603	240.0603	0.0248	0.0000	240.6803
Offroad	0.1106	1.0669	0.8999	1.6900e-003		0.0643	0.0643		0.0592	0.0592	0.0000	148.8847	148.8847	0.0482	0.0000	150.0885
Stationary	0.0110	0.0307	0.0280	5.0000e-005		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	5.1027	5.1027	7.2000e-004	0.0000	5.1206
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1764**	**1.9159**	**1.1962**	**4.1200e-003**	**0.0666**	**0.0681**	**0.1347**	**0.0181**	**0.0629**	**0.0810**	**0.0000**	**394.0479**	**394.0479**	**0.0737**	**0.0000**	**395.8896**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0241	0.8182	0.2681	2.3800e-003	0.0666	2.1500e-003	0.0687	0.0181	2.0500e-003	0.0201	0.0000	240.0603	240.0603	0.0248	0.0000	240.6803
Offroad	0.1106	1.0669	0.8999	1.6900e-003		0.0643	0.0643		0.0592	0.0592	0.0000	148.8847	148.8847	0.0482	0.0000	150.0885
Stationary	0.0110	0.0307	0.0280	5.0000e-005		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	5.1027	5.1027	7.2000e-004	0.0000	5.1206
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1764**	**1.9159**	**1.1962**	**4.1200e-003**	**0.0666**	**0.0681**	**0.1347**	**0.0181**	**0.0629**	**0.0810**	**0.0000**	**394.0479**	**394.0479**	**0.0737**	**0.0000**	**395.8896**

	ROG	NOx	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

Valencia Greenery - Phase II - CASP Composting - Orange County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/24/2022	9/16/2022	5	18	
2	Grading	Grading	9/19/2022	10/28/2022	5	30	
3	Paving	Paving	10/31/2022	11/24/2022	5	19	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15.3

Acres of Paving: 9

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1626	0.0000	0.1626	0.0894	0.0000	0.0894	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0285	0.2978	0.1773	3.4000e-004		0.0145	0.0145		0.0134	0.0134	0.0000	30.0955	30.0955	9.7300e-003	0.0000	30.3388
Total	**0.0285**	**0.2978**	**0.1773**	**3.4000e-004**	**0.1626**	**0.0145**	**0.1771**	**0.0894**	**0.0134**	**0.1027**	**0.0000**	**30.0955**	**30.0955**	**9.7300e-003**	**0.0000**	**30.3388**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	3.6000e-004	4.3400e-003	2.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4308	1.4308	3.0000e-005	0.0000	1.4316
Total	**5.6000e-004**	**3.6000e-004**	**4.3400e-003**	**2.0000e-005**	**1.7800e-003**	**1.0000e-005**	**1.7900e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.4308**	**1.4308**	**3.0000e-005**	**0.0000**	**1.4316**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0732	0.0000	0.0732	0.0402	0.0000	0.0402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0109	0.3035	0.2066	3.4000e-004		8.5200e-003	8.5200e-003		8.5200e-003	8.5200e-003	0.0000	30.0954	30.0954	9.7300e-003	0.0000	30.3388
Total	**0.0109**	**0.3035**	**0.2066**	**3.4000e-004**	**0.0732**	**8.5200e-003**	**0.0817**	**0.0402**	**8.5200e-003**	**0.0487**	**0.0000**	**30.0954**	**30.0954**	**9.7300e-003**	**0.0000**	**30.3388**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	3.6000e-004	4.3400e-003	2.0000e-005	1.7800e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4308	1.4308	3.0000e-005	0.0000	1.4316
Total	**5.6000e-004**	**3.6000e-004**	**4.3400e-003**	**2.0000e-005**	**1.7800e-003**	**1.0000e-005**	**1.7900e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.4308**	**1.4308**	**3.0000e-005**	**0.0000**	**1.4316**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0984	0.0000	0.0984	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.3128	0.2291	4.4000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	39.0822	39.0822	0.0126	0.0000	39.3982
Total	**0.0292**	**0.3128**	**0.2291**	**4.4000e-004**	**0.0984**	**0.0141**	**0.1126**	**0.0505**	**0.0130**	**0.0635**	**0.0000**	**39.0822**	**39.0822**	**0.0126**	**0.0000**	**39.3982**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.0000e-004	6.0300e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9873	1.9873	4.0000e-005	0.0000	1.9883
Total	**7.8000e-004**	**5.0000e-004**	**6.0300e-003**	**2.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4900e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**1.9873**	**1.9873**	**4.0000e-005**	**0.0000**	**1.9883**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0443	0.0000	0.0443	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.3942	0.2849	4.4000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	39.0821	39.0821	0.0126	0.0000	39.3981
Total	**0.0151**	**0.3942**	**0.2849**	**4.4000e-004**	**0.0443**	**0.0116**	**0.0559**	**0.0227**	**0.0116**	**0.0343**	**0.0000**	**39.0821**	**39.0821**	**0.0126**	**0.0000**	**39.3981**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.0000e-004	6.0300e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	1.0000e-005	6.7000e-004	0.0000	1.9873	1.9873	4.0000e-005	0.0000	1.9883
Total	**7.8000e-004**	**5.0000e-004**	**6.0300e-003**	**2.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4900e-003**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**1.9873**	**1.9873**	**4.0000e-005**	**0.0000**	**1.9883**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0105	0.1057	0.1385	2.2000e-004		5.4000e-003	5.4000e-003		4.9600e-003	4.9600e-003	0.0000	19.0262	19.0262	6.1500e-003	0.0000	19.1800
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0223**	**0.1057**	**0.1385**	**2.2000e-004**		**5.4000e-003**	**5.4000e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**19.0262**	**19.0262**	**6.1500e-003**	**0.0000**	**19.1800**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.2000e-004	3.8200e-003	1.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.2000e-004	1.0000e-005	4.2000e-004	0.0000	1.2586	1.2586	3.0000e-005	0.0000	1.2592
Total	**4.9000e-004**	**3.2000e-004**	**3.8200e-003**	**1.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5700e-003**	**4.2000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.2586**	**1.2586**	**3.0000e-005**	**0.0000**	**1.2592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.8400e-003	0.1911	0.1643	2.2000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	19.0262	19.0262	6.1500e-003	0.0000	19.1800
Paving	0.0118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0206**	**0.1911**	**0.1643**	**2.2000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**	**0.0000**	**19.0262**	**19.0262**	**6.1500e-003**	**0.0000**	**19.1800**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.2000e-004	3.8200e-003	1.0000e-005	1.5600e-003	1.0000e-005	1.5700e-003	4.2000e-004	1.0000e-005	4.2000e-004	0.0000	1.2586	1.2586	3.0000e-005	0.0000	1.2592
Total	**4.9000e-004**	**3.2000e-004**	**3.8200e-003**	**1.0000e-005**	**1.5600e-003**	**1.0000e-005**	**1.5700e-003**	**4.2000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.2586**	**1.2586**	**3.0000e-005**	**0.0000**	**1.2592**

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	0.0241	0.8182	0.2681	2.3800e-003	0.0666	2.1500e-003	0.0687	0.0181	2.0500e-003	0.0201	0.0000	240.0603	240.0603	0.0248	0.0000	240.6803
Unmitigated	0.0241	0.8182	0.2681	2.3800e-003	0.0666	2.1500e-003	0.0687	0.0181	2.0500e-003	0.0201	0.0000	240.0603	240.0603	0.0248	0.0000	240.6803

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	34.02	34.02	34.02	161,515	161,515
Total	34.02	34.02	34.02	161,515	161,515

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
Other Asphalt Surfaces	16.60	8.40	6.90	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.150000	0.070000	0.070000	0.000000	0.000000	0.000000	0.000000	0.710000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Unmitigated	0.0308	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Total	**0.0308**	**0.0000**	**1.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2000e-004	2.2000e-004	0.0000	0.0000	2.4000e-004
Total	**0.0308**	**0.0000**	**1.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	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			
Other Asphalt Surfaces	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			
Other Asphalt Surfaces	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			
Other Asphalt Surfaces	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
Other Construction Equipment	1	5.00	306	99	0.42	Diesel
Other Construction Equipment	1	3.00	306	390	0.42	Diesel
Other Construction Equipment	1	5.00	306	76	0.42	Diesel
Other Construction Equipment	1	6.50	306	950	0.42	Diesel
Other Construction Equipment	1	6.50	306	62	0.42	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Other Construction Equipment	0.1106	1.0669	0.8999	1.6900e-003		0.0643	0.0643		0.0592	0.0592	0.0000	148.8847	148.8847	0.0482	0.0000	150.0885
Total	**0.1106**	**1.0669**	**0.8999**	**1.6900e-003**		**0.0643**	**0.0643**		**0.0592**	**0.0592**	**0.0000**	**148.8847**	**148.8847**	**0.0482**	**0.0000**	**150.0885**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.14	50	268	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0110	0.0307	0.0280	5.0000e-005		1.6200e-003	1.6200e-003		1.6200e-003	1.6200e-003	0.0000	5.1027	5.1027	7.2000e-004	0.0000	5.1206
Total	**0.0110**	**0.0307**	**0.0280**	**5.0000e-005**		**1.6200e-003**	**1.6200e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**5.1027**	**5.1027**	**7.2000e-004**	**0.0000**	**5.1206**

11.0 Vegetation

Valencia Greenery - Phase II - CASP Composting

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.00	Acre	9.00	392,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Valencia Greenery - Phase II - CASP Composting - Orange County, Summer

Project Characteristics -

Land Use - The Valencia Greenery composting operation will be developed in an approximate 9-acre pad with a crushed asphalt base.

Construction Phase - Phase II construction tentative start: 8/24/22 and end 11/24/22.

Grading - The project would grade 15.3 acres.

Vehicle Trips - Trip rate based on trip generation prepared for the proposed project.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403 measures.

Operational Off-Road Equipment - Heavy equipment will include a mobile screen (99 HP), windrow turner (390 HP), a cover turner (76 HP), a chipper/grinder (950 HP), and a conveyor (62 HP).

Fleet Mix - Revised fleet mix based on trip generation (10 worker trips and 24 delivery trucks).

Stationary Sources - Emergency Generators and Fire Pumps - The proposed project would be powered by solar and would include a 268 kW backup generator. Assuming the generator would run 50 hours per year.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

Valencia Greenery - Phase II - CASP Composting - Orange County, Summer

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	19.00
tblConstructionPhase	NumDays	10.00	18.00
tblFleetMix	HHD	0.02	0.71
tblFleetMix	LDA	0.56	0.15
tblFleetMix	LDT1	0.04	0.07
tblFleetMix	LDT2	0.21	0.07
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7950e-003	0.00
tblFleetMix	MCY	4.9260e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	9.3400e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.7470e-003	0.00
tblFleetMix	SBUS	5.9400e-004	0.00
tblFleetMix	UBUS	1.5420e-003	0.00
tblGrading	AcresOfGrading	15.00	15.30
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	99.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	390.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	76.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	950.00

tblOperationalOffRoadEquipment	OperHorsePower	172.00	62.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	3.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	268.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TTP	0.00	28.00
tblVehicleTrips	CNW_TTP	0.00	13.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	3.78
tblVehicleTrips	SU_TR	0.00	3.78
tblVehicleTrips	WD_TR	0.00	3.78

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					
2022	3.2315	33.1191	20.2080	0.0399	18.2675	1.6139	19.8813	9.9840	1.4847	11.4688	0.0000	3,868.4381	3,868.4381	1.1958	0.0000	3,898.3338
Maximum	**3.2315**	**33.1191**	**20.2080**	**0.0399**	**18.2675**	**1.6139**	**19.8813**	**9.9840**	**1.4847**	**11.4688**	**0.0000**	**3,868.4381**	**3,868.4381**	**1.1958**	**0.0000**	**3,898.3338**

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					
2022	2.2233	33.7570	23.4703	0.0399	8.3310	0.9474	9.2785	4.5222	0.9473	5.4695	0.0000	3,868.4381	3,868.4381	1.1958	0.0000	3,898.3338
Maximum	**2.2233**	**33.7570**	**23.4703**	**0.0399**	**8.3310**	**0.9474**	**9.2785**	**4.5222**	**0.9473**	**5.4695**	**0.0000**	**3,868.4381**	**3,868.4381**	**1.1958**	**0.0000**	**3,898.3338**

	ROG	NOx	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	**31.20**	**-1.93**	**-16.14**	**0.00**	**54.39**	**41.29**	**53.33**	**54.71**	**36.19**	**52.31**	**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	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1313	4.3998	1.4502	0.0133	0.3717	0.0117	0.3834	0.1009	0.0112	0.1120		1,471.9869	1,471.9869	0.1485		1,475.7002
Offroad	0.7226	6.9733	5.8816	0.0111		0.4205	0.4205		0.3869	0.3869		1,072.6619	1,072.6619	0.3469		1,081.3349
Stationary	0.0616	0.1721	0.1570	3.0000e-004		9.0600e-003	9.0600e-003		9.0600e-003	9.0600e-003		31.4986	31.4986	4.4200e-003		31.6090
Total	**1.0843**	**11.5452**	**7.4898**	**0.0246**	**0.3717**	**0.4413**	**0.8130**	**0.1009**	**0.4071**	**0.5080**		**2,576.1493**	**2,576.1493**	**0.4999**	**0.0000**	**2,588.6462**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1313	4.3998	1.4502	0.0133	0.3717	0.0117	0.3834	0.1009	0.0112	0.1120		1,471.9869	1,471.9869	0.1485		1,475.7002
Offroad	0.7226	6.9733	5.8816	0.0111		0.4205	0.4205		0.3869	0.3869		1,072.6619	1,072.6619	0.3469		1,081.3349
Stationary	0.0616	0.1721	0.1570	3.0000e-004		9.0600e-003	9.0600e-003		9.0600e-003	9.0600e-003		31.4986	31.4986	4.4200e-003		31.6090
Total	**1.0843**	**11.5452**	**7.4898**	**0.0246**	**0.3717**	**0.4413**	**0.8130**	**0.1009**	**0.4071**	**0.5080**		**2,576.1493**	**2,576.1493**	**0.4999**	**0.0000**	**2,588.6462**

	ROG	NOx	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	8/24/2022	9/16/2022	5	18	
2	Grading	Grading	9/19/2022	10/28/2022	5	30	
3	Paving	Paving	10/31/2022	11/24/2022	5	19	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15.3

Acres of Paving: 9

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0356	0.5103	1.8300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		182.3762	182.3762	3.6800e-003		182.4683
Total	**0.0614**	**0.0356**	**0.5103**	**1.8300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**182.3762**	**182.3762**	**3.6800e-003**		**182.4683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**1.2097**	**33.7214**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0356	0.5103	1.8300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		182.3762	182.3762	3.6800e-003		182.4683
Total	**0.0614**	**0.0356**	**0.5103**	**1.8300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**182.3762**	**182.3762**	**3.6800e-003**		**182.4683**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5629	0.0000	6.5629	3.3686	0.0000	3.3686			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.5629**	**0.9409**	**7.5038**	**3.3686**	**0.8656**	**4.2342**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9533	0.0000	2.9533	1.5159	0.0000	1.5159			0.0000			0.0000
Off-Road	1.0093	26.2791	18.9906	0.0297		0.7725	0.7725		0.7725	0.7725	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.0093**	**26.2791**	**18.9906**	**0.0297**	**2.9533**	**0.7725**	**3.7258**	**1.5159**	**0.7725**	**2.2884**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.2411					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3439**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.2411					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1721**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	**0.0512**	**0.0297**	**0.4252**	**1.5200e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**151.9802**	**151.9802**	**3.0700e-003**		**152.0569**

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	0.1313	4.3998	1.4502	0.0133	0.3717	0.0117	0.3834	0.1009	0.0112	0.1120		1,471.9869	1,471.9869	0.1485		1,475.7002
Unmitigated	0.1313	4.3998	1.4502	0.0133	0.3717	0.0117	0.3834	0.1009	0.0112	0.1120		1,471.9869	1,471.9869	0.1485		1,475.7002

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	34.02	34.02	34.02	161,515	161,515
Total	34.02	34.02	34.02	161,515	161,515

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
Other Asphalt Surfaces	16.60	8.40	6.90	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.150000	0.070000	0.070000	0.000000	0.000000	0.000000	0.000000	0.710000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Other Construction Equipment	1	5.00	306	99	0.42	Diesel
Other Construction Equipment	1	3.00	306	390	0.42	Diesel
Other Construction Equipment	1	5.00	306	76	0.42	Diesel
Other Construction Equipment	1	6.50	306	950	0.42	Diesel
Other Construction Equipment	1	6.50	306	62	0.42	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Other Construction Equipment	0.7226	6.9733	5.8816	0.0111		0.4205	0.4205		0.3869	0.3869		1,072.6619	1,072.6619	0.3469		1,081.3349
Total	**0.7226**	**6.9733**	**5.8816**	**0.0111**		**0.4205**	**0.4205**		**0.3869**	**0.3869**		**1,072.6619**	**1,072.6619**	**0.3469**		**1,081.3349**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.14	50	268	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.0616	0.1721	0.1570	3.0000e-004		9.0600e-003	9.0600e-003		9.0600e-003	9.0600e-003		31.4986	31.4986	4.4200e-003		31.6090
Total	**0.0616**	**0.1721**	**0.1570**	**3.0000e-004**		**9.0600e-003**	**9.0600e-003**		**9.0600e-003**	**9.0600e-003**		**31.4986**	**31.4986**	**4.4200e-003**		**31.6090**

11.0 Vegetation

Valencia Greenery - Phase II - CASP Composting

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	9.00	Acre	9.00	392,040.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Valencia Greenery - Phase II - CASP Composting - Orange County, Winter

Project Characteristics -

Land Use - The Valencia Greenery composting operation will be developed in an approximate 9-acre pad with a crushed asphalt base.

Construction Phase - Phase II construction tentative start: 8/24/22 and end 11/24/22.

Grading - The project would grade 15.3 acres.

Vehicle Trips - Trip rate based on trip generation prepared for the proposed project.

Water And Wastewater -

Construction Off-road Equipment Mitigation - Assuming use of Tier 2 construction equipment and compliance with SCAQMD Rule 403 measures.

Operational Off-Road Equipment - Heavy equipment will include a mobile screen (99 HP), windrow turner (390 HP), a cover turner (76 HP), a chipper/grinder (950 HP), and a conveyor (62 HP).

Fleet Mix - Revised fleet mix based on trip generation (10 worker trips and 24 delivery trucks).

Stationary Sources - Emergency Generators and Fire Pumps - The proposed project would be powered by solar and would include a 268 kW backup generator. Assuming the generator would run 50 hours per year.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

Valencia Greenery - Phase II - CASP Composting - Orange County, Winter

tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	19.00
tblConstructionPhase	NumDays	10.00	18.00
tblFleetMix	HHD	0.02	0.71
tblFleetMix	LDA	0.56	0.15
tblFleetMix	LDT1	0.04	0.07
tblFleetMix	LDT2	0.21	0.07
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.7950e-003	0.00
tblFleetMix	MCY	4.9260e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	9.3400e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	1.7470e-003	0.00
tblFleetMix	SBUS	5.9400e-004	0.00
tblFleetMix	UBUS	1.5420e-003	0.00
tblGrading	AcresOfGrading	15.00	15.30
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	306.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	99.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	390.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	76.00
tblOperationalOffRoadEquipment	OperHorsePower	172.00	950.00

tblOperationalOffRoadEquipment	OperHorsePower	172.00	62.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	3.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	5.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	6.50
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperLoadFactor	0.42	0.42
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	268.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.14
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	CC_TTP	0.00	28.00
tblVehicleTrips	CNW_TTP	0.00	13.00
tblVehicleTrips	CW_TTP	0.00	59.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	3.78
tblVehicleTrips	SU_TR	0.00	3.78
tblVehicleTrips	WD_TR	0.00	3.78

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					
2022	3.2398	33.1227	20.1679	0.0398	18.2675	1.6139	19.8813	9.9840	1.4847	11.4688	0.0000	3,858.6780	3,858.6780	1.1956	0.0000	3,888.5688
Maximum	**3.2398**	**33.1227**	**20.1679**	**0.0398**	**18.2675**	**1.6139**	**19.8813**	**9.9840**	**1.4847**	**11.4688**	**0.0000**	**3,858.6780**	**3,858.6780**	**1.1956**	**0.0000**	**3,888.5688**

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					
2022	2.2302	33.7605	23.4302	0.0398	8.3310	0.9474	9.2785	4.5222	0.9473	5.4695	0.0000	3,858.6780	3,858.6780	1.1956	0.0000	3,888.5688
Maximum	**2.2302**	**33.7605**	**23.4302**	**0.0398**	**8.3310**	**0.9474**	**9.2785**	**4.5222**	**0.9473**	**5.4695**	**0.0000**	**3,858.6780**	**3,858.6780**	**1.1956**	**0.0000**	**3,888.5688**

	ROG	NOx	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	**31.16**	**-1.93**	**-16.18**	**0.00**	**54.39**	**41.29**	**53.33**	**54.71**	**36.19**	**52.31**	**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	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1349	4.4147	1.5147	0.0129	0.3717	0.0120	0.3837	0.1009	0.0115	0.1123		1,436.6643	1,436.6643	0.1528		1,440.4851
Offroad	0.7226	6.9733	5.8816	0.0111		0.4205	0.4205		0.3869	0.3869		1,072.6619	1,072.6619	0.3469		1,081.3349
Stationary	0.0616	0.1721	0.1570	3.0000e-004		9.0600e-003	9.0600e-003		9.0600e-003	9.0600e-003		31.4986	31.4986	4.4200e-003		31.6090
Total	**1.0879**	**11.5600**	**7.5543**	**0.0243**	**0.3717**	**0.4416**	**0.8133**	**0.1009**	**0.4074**	**0.5083**		**2,540.8268**	**2,540.8268**	**0.5042**	**0.0000**	**2,553.4311**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1349	4.4147	1.5147	0.0129	0.3717	0.0120	0.3837	0.1009	0.0115	0.1123		1,436.6643	1,436.6643	0.1528		1,440.4851
Offroad	0.7226	6.9733	5.8816	0.0111		0.4205	0.4205		0.3869	0.3869		1,072.6619	1,072.6619	0.3469		1,081.3349
Stationary	0.0616	0.1721	0.1570	3.0000e-004		9.0600e-003	9.0600e-003		9.0600e-003	9.0600e-003		31.4986	31.4986	4.4200e-003		31.6090
Total	**1.0879**	**11.5600**	**7.5543**	**0.0243**	**0.3717**	**0.4416**	**0.8133**	**0.1009**	**0.4074**	**0.5083**		**2,540.8268**	**2,540.8268**	**0.5042**	**0.0000**	**2,553.4311**

	ROG	NOx	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	8/24/2022	9/16/2022	5	18	
2	Grading	Grading	9/19/2022	10/28/2022	5	30	
3	Paving	Paving	10/31/2022	11/24/2022	5	19	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15.3

Acres of Paving: 9

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**18.0663**	**1.6126**	**19.6788**	**9.9307**	**1.4836**	**11.4143**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0697	0.0391	0.4701	1.7300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		172.6162	172.6162	3.4800e-003		172.7033
Total	**0.0697**	**0.0391**	**0.4701**	**1.7300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**172.6162**	**172.6162**	**3.4800e-003**		**172.7033**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0380		0.9462	0.9462		0.9462	0.9462	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**1.2097**	**33.7214**	**22.9600**	**0.0380**	**8.1298**	**0.9462**	**9.0760**	**4.4688**	**0.9462**	**5.4150**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0697	0.0391	0.4701	1.7300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		172.6162	172.6162	3.4800e-003		172.7033
Total	**0.0697**	**0.0391**	**0.4701**	**1.7300e-003**	**0.2012**	**1.2800e-003**	**0.2025**	**0.0534**	**1.1800e-003**	**0.0545**		**172.6162**	**172.6162**	**3.4800e-003**		**172.7033**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5629	0.0000	6.5629	3.3686	0.0000	3.3686			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**6.5629**	**0.9409**	**7.5038**	**3.3686**	**0.8656**	**4.2342**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9533	0.0000	2.9533	1.5159	0.0000	1.5159			0.0000			0.0000
Off-Road	1.0093	26.2791	18.9906	0.0297		0.7725	0.7725		0.7725	0.7725	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.0093**	**26.2791**	**18.9906**	**0.0297**	**2.9533**	**0.7725**	**3.7258**	**1.5159**	**0.7725**	**2.2884**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.2411					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3439**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	1.2411					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1721**	**20.1146**	**17.2957**	**0.0228**		**0.6670**	**0.6670**		**0.6670**	**0.6670**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	**0.0581**	**0.0326**	**0.3918**	**1.4400e-003**	**0.1677**	**1.0600e-003**	**0.1687**	**0.0445**	**9.8000e-004**	**0.0455**		**143.8468**	**143.8468**	**2.9000e-003**		**143.9194**

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	0.1349	4.4147	1.5147	0.0129	0.3717	0.0120	0.3837	0.1009	0.0115	0.1123		1,436.6643	1,436.6643	0.1528		1,440.4851
Unmitigated	0.1349	4.4147	1.5147	0.0129	0.3717	0.0120	0.3837	0.1009	0.0115	0.1123		1,436.6643	1,436.6643	0.1528		1,440.4851

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	34.02	34.02	34.02	161,515	161,515
Total	34.02	34.02	34.02	161,515	161,515

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
Other Asphalt Surfaces	16.60	8.40	6.90	59.00	28.00	13.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.150000	0.070000	0.070000	0.000000	0.000000	0.000000	0.000000	0.710000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Unmitigated	0.1688	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.9700e-003	1.9700e-003	1.0000e-005		2.1000e-003
Total	**0.1688**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.9700e-003**	**1.9700e-003**	**1.0000e-005**		**2.1000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Other Construction Equipment	1	5.00	306	99	0.42	Diesel
Other Construction Equipment	1	3.00	306	390	0.42	Diesel
Other Construction Equipment	1	5.00	306	76	0.42	Diesel
Other Construction Equipment	1	6.50	306	950	0.42	Diesel
Other Construction Equipment	1	6.50	306	62	0.42	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Other Construction Equipment	0.7226	6.9733	5.8816	0.0111		0.4205	0.4205		0.3869	0.3869		1,072.6619	1,072.6619	0.3469		1,081.3349
Total	**0.7226**	**6.9733**	**5.8816**	**0.0111**		**0.4205**	**0.4205**		**0.3869**	**0.3869**		**1,072.6619**	**1,072.6619**	**0.3469**		**1,081.3349**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.14	50	268	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.0616	0.1721	0.1570	3.0000e-004		9.0600e-003	9.0600e-003		9.0600e-003	9.0600e-003		31.4986	31.4986	4.4200e-003		31.6090
Total	**0.0616**	**0.1721**	**0.1570**	**3.0000e-004**		**9.0600e-003**	**9.0600e-003**		**9.0600e-003**	**9.0600e-003**		**31.4986**	**31.4986**	**4.4200e-003**		**31.6090**

11.0 Vegetation