Air Quality and Greenhouse Gas Emissions Analysis Technical Report for the Desert Hot Springs Wind Energy Repowering Project Desert Hot Springs, California

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
2016 RTP/SCS	2016–2040 Regional Transportation Plan / Sustainable Communities Strategy
AB	Assembly Bill
amsl	above mean sea level
AQMP	Air Quality Management Plan
BAU	business as usual
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California's Green Building Standards
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Desert Hot Springs
CO	carbon monoxide
CO_2	carbon dioxide
CPUC	California Public Utilities Commission
CVAG	Coachella Valley Association of Governments of Governments
DPM	diesel particulate matter
EO	Executive Order
EPA	U.S. Environmental Protection Agency
First Update	*First Update to the Climate Change Scoping Plan: Building on the Framework*
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
HFC	hydrofluorocarbon
IPCC	Intergovernmental Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LOS	level of service
LST	localized significance thresholds
MMT	million metric ton
MPO	metropolitan planning organization
MT CO_2e	metric tons of carbon dioxide equivalent
MW	megawatt
N_2O	nitrous oxide

Acronym/Abbreviation	Definition
NAAQS	National Ambient Air Quality Standards
NF_3	nitrogen trifluoride
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
O_3	ozone
PFC	perfluorocarbon
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
ppb	parts per billion
ppm	parts per million
Project	Desert Hot Springs Wind Energy Repowering Project
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCAB	South Coast Air Basin
SCADA	Supervisory Control and Data Acquisition
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
Scoping Plan	*Climate Change Scoping Plan: A Framework for Change*
SCS	Sustainable Communities Strategy
Second Update	2017 Climate Change
SF_6	sulfur hexafluoride
SLCP	short-lived climate pollutant
SO_2	sulfur dioxide
SO_x	sulfur oxides
SRA	source-receptor area
SSAB	Salton Sea Air Basin
TAC	toxic air contaminants
TPPS	Transportation Project Prioritization Study
VMT	vehicle miles traveled
VOC	volatile organic compound
WTG	wind turbine generators
ZEV	zero emissions vehicle
ZNE	zero net energy

EXECUTIVE SUMMARY

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the proposed Desert Hot Springs Wind Energy Repowering Project (Project) located in the City of Desert Hot Springs, California (City). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.).

Project Overview

The Project would produce up to approximately 17 megawatts (MW) of wind energy. As proposed by Desert Hot Springs Wind, LLC (Project Applicant), the repowering component of the Project would consist of up to four new wind turbines with a range of approximately 2.0 to 4.2 MW in nameplate capacity per turbine. In addition to the new wind turbines, the Project includes the following primary components:

- Decommissioning of the approximately 69 existing wind turbines and the appropriate ancillary equipment
- Connection to an existing substation (Southern California Edison Venwind substation located on Assessor Parcel Number 516030014) through either a new underground or overhead collection line or an existing Southern California Edison 12-kilovolt overhead collection line
- Installation of one new temporary and one new permanent meteorological tower, each up to 309 feet tall
- Decommissioning of the new wind turbines at the end of their useful life cycle

The wind turbines are capable of operating 24 hours per day, depending on wind and meteorological conditions.

The Project site is located within the Salton Sea Air Basin (SSAB) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Construction criteria air pollutant and GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2, consistent with SCAQMD guidance.

Air Quality

The air quality impact analysis evaluated the potential for adverse impacts to air quality due to construction and operational emissions resulting from the Project. Impacts were evaluated for their significance based on the SCAQMD mass daily criteria air pollutant thresholds (SCAQMD

1993, as revised in March 2015). Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated include volatile organic compounds (VOCs) (also referred to as reactive organic gases), oxides of nitrogen (NO_x), CO, sulfur oxides (SO_x), PM_{10}, and $PM_{2.5}$. VOCs and NO_x are important because they are precursors to O_3.

Air Quality Plan Consistency

The Project would not result in an increase in the frequency and severity of existing air quality violations and would not conflict with the SCAQMD Consistency Criterion No. 1. Also, implementation of the Project would not exceed the demographic growth forecasts in the Southern California Association of Governments of Governments (SCAG) 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS); therefore, the Project would also be consistent with the SCAQMD 2016 Air Quality Management Plan (AQMP), which based future emission estimates on the SCAG 2016 RTP/SCS. Thus, the Project would not conflict with the SCAQMD Consistency Criterion No. 2. Based on these considerations, impacts related to the Project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

Construction Criteria Air Pollutant Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Maximum daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction in all construction years (2018–2019).

Operational Criteria Air Pollutant Emissions

Operational activities would be limited to maintenance and repair. Maintenance activities would be minimal and would be similar to those that occur under existing conditions.

No net increase in the number of people employed and working on the Project site would occur. As there would be no new operational activities associated with this Project, it would have a less-than-significant impact.

Exposure of Sensitive Receptors

Construction activities would not generate emissions in excess of the SCAQMD site-specific localized significance thresholds (LSTs); therefore, site-specific construction impacts would be less than significant. In addition, diesel equipment would also be subject to the California Air Resources Board (CARB) air toxic control measures for in-use off-road diesel fleets, which would minimize diesel particulate matter (DPM) emissions. Similarly, the vehicle related emissions would be temporary and would not cause a long-term source of CO. Therefore, the Project would have a less-than-significant impact on sensitive receptors.

Odors

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, which would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Impacts associated with odors during construction would be less than significant. The Project would not generate any new odors during operation; therefore, impacts during operation would be less than significant.

Cumulative Impacts

The potential for the Project to result in a cumulatively considerable impact, per the SCAQMD guidance, is based on the Project's potential to exceed the Project-specific daily thresholds. As discussed previously, maximum construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. Therefore, the Project would not result in a cumulatively considerable increase in criteria air pollutants and would have a less-than-significant cumulative impact.

Greenhouse Gas Emissions

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

Project-Generated Construction and Operational Greenhouse Gas Emissions

The threshold applied to assess the potential for the Project to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment was the recommended SCAQMD threshold of 3,000 MT CO_2e per year for non-industrial projects. Pursuant to SCAQMD recommendation, construction emissions were amortized over a 30-year project lifetime so that construction GHG emissions can be compared to the operational threshold (SCAQMD 2008).

Construction of the Project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Total Project-generated GHG emissions during construction were estimated to be 590 MT CO_2e over the construction period. Estimated Project-generated construction emissions amortized over 30 years would be approximately 20 MT CO_2e per year. As there are no operational GHG emissions for the Project as there would be no increased operations activity due to the Project[1] and the amortized construction GHG emissions do not exceed the 3,000 MT CO_2e per year threshold, the Project-generated GHG emissions would result in a less-than-significant impact.

GHG Benefit

The Project is expected to produce an additional 51,140 MWh per year compared to the existing wind turbines. The latest published GHG emission factor for Southern California Edison is 0.256 MT CO_2e/MWh (Southern California Edison 2017). Southern California Edison reported that 28% of its power mix was renewable in 2016. Therefore, the non-renewable GHG emission factor would be 0.356 MT CO_2e/MWh. Thus, the Project would provide a potential reduction of 18,206 MT CO_2e per year if the renewable electricity generated by the Project were to be used instead of electricity generated by fossil-fuel sources. Because the project would not generate operational GHG emissions and amortized construction GHG emissions are calculated to be 20 MT CO_2e per year, the net reduction in GHG emissions would be 18,186 MT CO_2e per year and a total of 545,580 MT CO_2e over the 30-year Project lifetime. This reduction is not considered in the significance determination of the Project's GHG emissions but is provided for disclosure purposes.

[1] To operate the existing wind energy facilities, the Project Applicant and its affiliates employ approximately 10 people in the broader Desert Hot Springs area. Once repowered, a similarly sized operations team would continue to work on the Project and on the Project site. In addition, the number of routine operations- and maintenance-related trips would also not change, and given that the number of onsite turbines is being reduced, the amount of operations and maintenance activities (and trips associated with these activities) would likely decrease.

Consistency with Applicable Greenhouse Gas Reduction Plans

The Project was assessed for consistency with the City's Climate Action Plan, the SCAG 2016/RTP/SCS, CARB's updated Scoping Plan, and Executive Order S-3-05. The Project was shown to be consistent with all the GHG plans previously mentioned. To the extent these regulations are applicable to the Project and its uses, the Project would comply with all applicable regulations adopted in furtherance of the scoping plan to the extent required by law. As such, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be less than significant.

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1 INTRODUCTION

1.1 Report Purpose and Scope

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the proposed Desert Hot Springs Wind Energy Repowering Project (Project) located in the City of Desert Hot Springs (City). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and is based on the emissions-based significance thresholds recommended by the South Coast Air Quality Management District (SCAQMD) and other applicable thresholds of significance.

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

The analysis in this technical report incorporates Project data provided by the Project Applicant and the California Emission Estimator Model (CalEEMod) default values where appropriate.

1.2 Regional and Local Setting

The approximately 160-acre Project site is immediately bounded by undeveloped land to the north, south, and west and Metropolitan Water District (MWD) facilities to the east. Downtown Desert Hot Springs is located approximately 6 miles east of the Project site, and the Interstate 10/State Route 62 interchange is located approximately 2.2 miles to the south (as shown on Figure 1). Primary access to the Project site would continue to be provided through an existing private access off Windhaven Road. The Project site consists of the Assessor Parcel Number (APN) 667-160-001.

1.3 Project Description

The Project would produce up to approximately 17 megawatts (MW) of wind energy. As proposed by the Desert Hot Springs Wind, LLC (Project Applicant), the repowering component

of the Project would consist of up to four new wind turbines with a range of approximately 2.0 to 4.2 MW in nameplate capacity per turbine. In addition to the new wind turbines, the Project includes the following primary components:

- Decommissioning of the approximately 69 existing wind turbines and the appropriate ancillary equipment
- Connection to an existing substation (Southern California Edison (SCE) Venwind substation located on APN 516030014) through either a new underground or overhead collection line system (or combination, thereof) or a new connection to an existing overhead SCE 12-kilovolt collection line system
- Installation of one new temporary and one new permanent meteorological tower, each up to 309 feet tall
- Decommissioning of the new wind turbines at the end of their useful life cycle

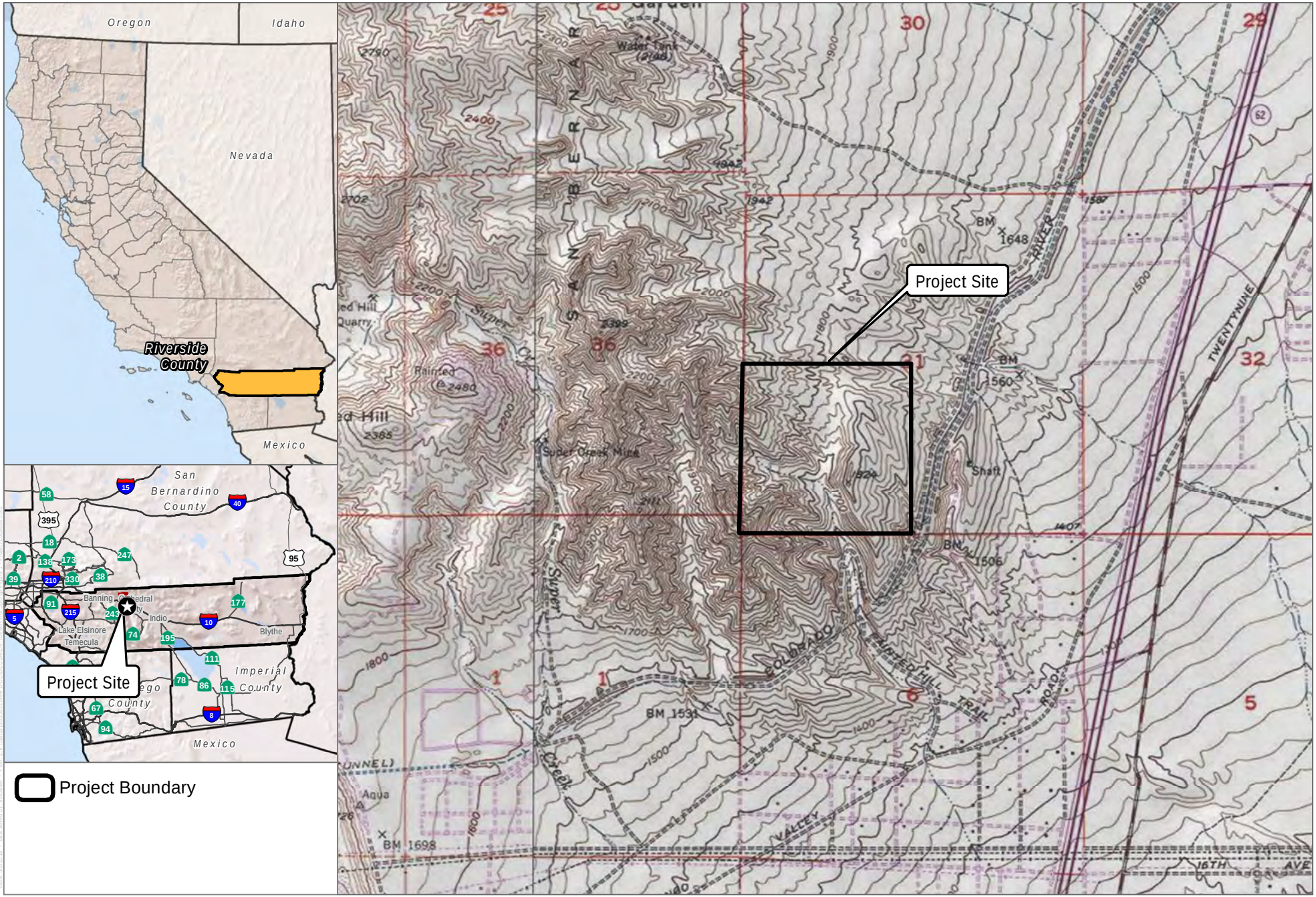
To operate the existing wind energy facilities, the Project Applicant and its affiliates employ approximately 10 people in the broader Desert Hot Springs area. Once repowered, a similarly sized operations team would continue to work on the Project and on the Project site. The wind turbines are capable of operating 24 hours per day, depending on wind and meteorological conditions.

Proposed Wind Turbines

Since wind turbine technology is continually improving, and the cost and availability of specific types of turbines vary from year to year, representative turbines for the Project include up to four wind turbines ranging from 2.0 to 4.2 MW in nameplate capacity per turbine. Turbines would consist of tubular steel towers with an estimated rotor diameter of up to 427 feet and a total height (turbine base to top of turbine blade in the twelve o'clock position) of up to 500 feet.

All turbines would be three-bladed, upwind, horizontal-axis wind turbines. Each wind turbine would be mounted on a concrete pedestal supported by a permanent concrete foundation. All wind turbines would have a turbine rotor and nacelle mounted on top of its tubular steel tower.

The wind turbines would be grouped in a single row and connected by an underground or overhead electrical cable system. Turbines would be arranged in the row in accordance with applicable industry siting recommendations for optimum energy production and minimal land disturbance.



SOURCE: NAIP 2016

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Desert Hot Springs Wind Energy Facility Repowering Project

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Supervisory Control and Data Acquisition System

Each wind turbine would be connected to an off-site Supervisory Control and Data Acquisition (SCADA) system. The SCADA system would allow for controlling and monitoring individual wind turbines, as well as the Project as a whole, from a central operations center. If problems occur, the SCADA system could send signals to a cell phone, tablet, computer, or other personal communication device to alert operations staff. The SCADA system would also be connected to the California Independent System Operator and Southern California Edison.

The Project would use wind turbines designed with several levels of built-in safety measures to comply with Occupational Safety and Health Administration and American National Standards Institute requirements. Personnel located at an off-site operations and maintenance facility would monitor the wind turbines with the SCADA system.

Access Roads

Where feasible, the existing network of permanent access roads would be retained and reused for the new wind turbines. In addition to the existing roads, permanent access and maintenance roads would be constructed to provide access and circulation within the Project. These access roads will consist of an approximately 16-foot-wide permanent roads to provide access to each wind turbine and ancillary equipment. These same permanent access roads would be used during construction, although the width of these roads may be temporarily increased to up to an approximately 36 feet wide to accommodate cranes and larger construction equipment.

Access roads will consist of compacted native material but may also require approximately 4 to 6 inches of aggregate and/or geosynthetic material to provide the soil strength needed for construction. The disturbed areas outside the final roadway width would be graded and compacted for use during construction and then de-compacted and stabilized at the conclusion of construction. A new permanent access road layout will incorporate applicable federal and local standards regarding internal road design and circulation, particularly those provisions related to emergency vehicle access.

Temporary Laydown and Parking

An approximately two-acre temporary laydown and staging area would be used for construction parking and as a temporary laydown yard to stage wind turbine components, construction equipment, and construction materials. Steel construction containers would be used to securely store specialized equipment. This area would be located strategically within the Project area to optimize construction activities while also minimizing off-site visual impacts to the extent feasible. After construction, all

temporary disturbances and construction containers associated with the temporary laydown and parking area would be removed, and these areas would be restored.

An approximately 200-foot by 300-foot temporary work area for each wind turbine site would be used for the crane pad, equipment laydown, and other construction-related needs. Within this temporary work area, a crane pad is required for supporting the large tower erection crane. The crane pad will consist of a compacted native soil or compacted aggregate base gravel area. The topsoil from the crane pads, if any, would be used at adjacent locations during restoration activities.

2 AIR QUALITY

2.1 Environmental Setting

The Project site is located within the Salton Sea Air Basin (SSAB). The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward to the Palo Verde Valley. The Coachella Valley Planning Area is a federal nonattainment area that is part of a sub-region of Riverside County in the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east.

2.1.1 Meteorological and Topographical Conditions

The SSAB includes the central portion of Riverside County (Coachella Valley) and all of Imperial County. The Riverside County portion of the SSAB is under the jurisdiction of the SCAQMD. The SSAB is generally very flat and bordered to the west by the Peninsular Mountain range and to the east by the Chocolate, Orocopia, and Cargo Muchacho Mountains. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (SCAQMD 2017).

The SSAB is a continental, desert region with a climate characterized by low annual rainfall, low humidity, hot days, and cool nights. Temperatures exceed 100°F during the summer with daily highs near 110°F during July and August. The mean temperature in the summer is 89°F, while the mean temperature in the winter is 57°F (SCAQMD 2017). Rainfall in the area varies considerably, although precipitation normally occurs November through April. A semi-permanent high-pressure zone blocks mid-latitude storms and causes sunny skies most of the time in the SSAB. The high-pressure zone tends to be weaker in the winter, and it is during this time that the SSAB usually receives its average 2.8 inches of annual precipitation. The Peninsular Mountains to the west block coastal influence, such as cool and damp marine air that traverses inland from the Pacific Ocean. The geographic barriers and atmospheric conditions often limit the amount of precipitation for the area.

The Coachella Valley is impacted by pollutant transport from the South Coast Air Basin (SCAB). Ozone in the atmosphere of the Riverside County portion of SSAB is both directly transported from the SCAB and formed principally from ozone precursors (hydrocarbons and

NO_x[2]) emitted upwind. In addition, pollutant transport occurs to the Antelope Valley, Mojave Desert, Ventura County, and San Diego County. The mountains to the east act as physical barriers to the dispersion of airborne contaminants. The Coachella Valley is exposed to frequent gusty winds; with stronger tending to occur in the western portion of the valley, while lighter winds tend to occur in the east half of the valley. The pollutant transport pathway from the SCAB to the SSAB is through the San Gorgonio Pass (sometimes referred to as the Banning Pass) to the Coachella Valley.

The City's climate is characterized by relatively low rainfall, with warm summers and mild winters. Average temperatures range from a high of 108°F in July to a low of 42°F in December. Annual precipitation averages about 5.5 inches, falling mostly from August through March (WRCC 2017).

Sunlight

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen (NO_x)) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind of the emission sources. Southern California has abundant sunshine, which drives the photochemical reactions that form pollutants such as ozone (O_3) and a substantial portion of fine particulate matter ($PM_{2.5}$, particles less than 2.5 microns in diameter). In the SSAB, high concentrations of O_3 are normally recorded during the late spring, summer, and early autumn months, when more intense sunlight drives enhanced photochemical reactions. Due to the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California.

Temperature Inversions

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air mix and disperse into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion—a layer of warm, dry air overlaying cool, moist marine air—is a normal condition in coastal Southern California. The cool, damp, and hazy sea air capped by coastal clouds is heavier than the warm, clear air, which acts as a lid through which the cooler marine layer cannot rise. The height of the inversion is important in determining pollutant

[2] NO_x is a general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO_2) and other oxides of nitrogen.

concentration. When the inversion is approximately 2,500 feet above mean sea level (amsl), the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet amsl, the terrain prevents the pollutants from entering the upper atmosphere, resulting in the pollutants settling in the foothill communities. Below 1,200 feet amsl, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Usually, inversions are lower before sunrise than during the daylight hours.

Mixing heights for inversions are lower in the summer and inversions are more persistent, being partly responsible for the high levels of O_3 observed during summer months in the SSAB. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods, allowing them to form secondary pollutants by reacting in the presence of sunlight. The SSAB has a limited ability to disperse these pollutants due to typically low wind speeds and the surrounding mountain ranges.

As with other cities within the SSAB, the City is susceptible to air inversions, which trap a layer of stagnant air near the ground where pollutants are further concentrated. These inversions produce haziness caused by moisture, suspended dust, and a variety of chemical aerosols emitted by trucks, automobiles, furnaces, and other sources. Elevated concentrations of particulate matter less than 10 microns in diameter (PM_{10}) and $PM_{2.5}$ can occur in the SSAB throughout the year but occur most frequently in fall and winter. Although there are some changes in emissions by day-of-week and season, the observed variations in pollutant concentrations are primarily the result of seasonal differences in weather conditions.

The Coachella Valley has limited local NO_x emissions to help scavenge the ozone at night. This elevated overnight ozone contributes to an early morning bump in the Coachella Valley ozone concentrations, starting around 8 a.m. PST, with the ample sunlight and strong overnight temperature inversions in the desert. Ozone concentrations in this area reach an initial peak before noon and then drop slightly with increased mixing in the early afternoon, before climbing to the daily peak as the normal onshore flow reaches the Coachella Valley through the San Gorgonio Pass, transporting new ozone from the South Coast Air Basin (SCAQMD 2013).

2.1.2 Pollutants and Effects

2.1.2.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels

above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[3] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the Sun's energy and O_3 precursors. These precursors are mainly NO_x and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone).[4] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_x plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_x is formed from fuel combustion under high temperature or pressure. In addition, NO_x is an important precursor to acid rain and may affect both

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

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

terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

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

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the Project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

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

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

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter and

is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. PM_{10} tends to collect in the upper portion of the respiratory system, whereas $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$ (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in

neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

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

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

2.1.2.2 Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification to the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of $PM_{2.5}$ (CARB 2016b). DPM is typically composed of carbon particles ("soot," also called black carbon, or BC) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016b). The CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "valley fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline, sandy soils.

Riverside County is not considered a highly endemic region for valley fever as the latest report from the California Department of Public Health listed Riverside County as having 2.7 cases per 100,000 people (California Department of Public Health 2017). Similarly, among the total reported incidents of valley fever in Riverside County in 2015, only 0.9% of the cases were in Desert Hot Springs (Riverside University Health System Public Health 2016).

2.1.3 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The SCAQMD identifies sensitive receptors as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest area of disturbance associated with construction of the new turbines would be located approximately 1,900 feet from the nearest sensitive-receptor land use (resident), while the nearest area of disturbance associated with improvements to the access road would be located approximately 250 feet from the closest residence.

2.2 Regulatory Setting

2.2.1 Federal Regulations

2.2.1.1 Criteria Air Pollutants

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

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and

those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

2.2.1.2 Hazardous Air Pollutants

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for HAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 federal Clean Air Act Amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

2.2.2 State Regulations

2.2.2.1 Criteria Air Pollutants

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

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

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	*Primary*[c,d]	*Secondary*[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-Day Average	1.5 µg/m³	—	—
	Calendar Quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016b.

Notes: µg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter; ppm = parts per million by volume; O_3 = ozone; NO_2 = nitrogen dioxide; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

[a] California standards for O_3, CO, SO_2 (1 hour and 24 hours), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

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

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

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

[g] To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24 hours and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

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

[j] CARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

2.2.2.2 Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and non-carcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification to the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic Control Measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

California Health and Safety Code, Section 41700

This section of the California Health and Safety Code states that a person shall not discharge, from any source whatsoever, quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any of those persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

2.2.3 Local Regulations

The following local/regional regulations pertaining to air quality would apply to the Project.

2.2.3.1 South Coast Air Quality Management District

The SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the Riverside County portion of the SSAB, where the Project is located. The SCAQMD operates monitoring stations in the SSAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain state and federal ambient air quality standards in the SSAB. The SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

The most recent is the 2016 AQMP (SCAQMD 2017), adopted by the SCAQMD governing board on March 3, 2017. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available,

proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017). Because mobile sources are the principal contributor to the SSAB's air quality challenges, the SCAQMD has been and will continue to be closely engaged with CARB and the EPA, who have primary responsibility for these sources. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality but also local businesses and the regional economy. These "win-win" scenarios are key to implementation of this 2016 AQMP with broad support from a wide range of stakeholders.

On April 18, 2003, U.S. EPA approved the 2003 Coachella Valley State Implementation Plan (2003 CVSIP), which addressed future-year attainment of the annual average PM_{10} NAAQS with a 2006 attainment deadline. This federal standard was revoked, effective December 15, 2006. Since 2007, annual average PM_{10} concentrations have met the revoked federal annual standard (50 $\mu g/m^3$). The 2003 CVSIP also addressed continued attainment of the 24-hour PM_{10} federal standard, except for uncontrollable natural events. The 2016 AQMP does not include new modeling efforts for PM_{10}. Since the mid-1990s, peak 24-hour average PM10 concentrations have not exceeded the current federal standard (150 $\mu g/m^3$) other than on days with windblown dust from natural events, which can be excluded upon U.S. EPA concurrence consistent with the Exceptional Event Rules and prior policies. The PM_{10} data from the Coachella Valley monitors shows attainment of the PM_{10} 24-hour NAAQS after the removal of the flagged high-wind exceptional events, for which SCAQMD supporting documentation will be submitted and subsequent U.S. EPA approval will be required. However, U.S. EPA has requested that SCAQMD conduct additional ambient monitoring in the southeastern portion of the Coachella Valley before the re-designation can be considered. This new station has been in operation since 2013 in the community of Mecca, and redesignation will be revisited upon analysis of the required three full years of data.

The previous AQMP was the 2012 AQMP, which was adopted in February 2013 (SCAQMD 2013). The 2012 AQMP proposed policies and measures to achieve federal and state standards for improved air quality in the SSAB and those portions of the SSAB (formerly named the Southeast Desert Air Basin) that are under SCAQMD jurisdiction. The 2012 AQMP is designed to meet applicable federal and state requirements for O_3 and particulate matter. The 2012 AQMP documents that attainment of the federal 24-hour $PM_{2.5}$ standard is impracticable by 2015, and SSAB should be classified as a "serious" nonattainment area along with the appropriate federal requirements. The 2012 AQMP includes the planning requirements to meet the 1-hour O_3

standard. The 2012 AQMP demonstrates attainment of the federal 24-hour $PM_{2.5}$ standard by 2014 in the SSAB through adoption of all feasible measures. Finally, the 2012 AQMP updates the EPA-approved 8-hour O_3 control plan with new measures designed to reduce reliance on the Clean Air Act Section 182(e)(5) long-term measures for NO_x and VOC reductions. The 2012 AQMP reduction and control measures, which are outlined to mitigate emissions, are based on existing and projected land use and development. The EPA, with a final ruling on April 14, 2016, approved the Clean Air Act planning requirements for the 24-hour $PM_{2.5}$ standard portion and on September 3, 2014, approved the 1-hour O_3 Clean Air Act planning requirements.

Applicable Rules

Emissions that would result from mobile, area, and stationary sources during construction and operation of the Project are subject to the rules and regulations of the SCAQMD. The SCAQMD rules applicable to the Project may include the following:

- **Rule 401 – Visible Emissions:** This rule establishes the limit for visible emissions from stationary sources.
- **Rule 402 – Nuisance:** This rule prohibits the discharge of air pollutants from a facility that causes injury, detriment, nuisance, or annoyance to the public or damage to business or property.
- **Rule 403 – Fugitive Dust:** This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.
- **Rule 403.1 – Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources:** This rule enacts fugitive dust control requirements that are in addition to those within Rule 403 and apply only to sources within the Coachella Valley.
- **Rule 431.2 – Sulfur Content of Liquid Fuels:** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers, such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile sources.

2.2.3.2 Coachella Valley Association of Governments

The City is within the jurisdiction of the Coachella Valley Association of Governments (CVAG), which participates in regional planning with the Southern California Association of Governments (SCAG). CVAG is, among other things, the regional transportation planning agency coordinating government services in the Coachella Valley. As the recognized transportation planning agency with the Riverside County Transportation Commission, it is CVAG's responsibility to prepare and adopt a Regional Transportation Plan (RTP) for the Coachella Valley. This is accomplished through the creation of the Transportation Project Prioritization Study (TPPS), which identifies and prioritizes transportation projects in the region. The CVAG developed its first TPPS in 1989, with subsequent report updates in 1993, 1999, 2005, and 2010. The most recent version was adopted on June 26, 2017 (CVAG 2017). The TPPS includes growth projections for cities within the Coachella Valley. The projects and growth projections within the TPPS are fed into a larger regional planning effort by the SCAG. SCAG recently released its 2016 RTP, which includes the majority of projects seen within the TPPS. The SCAQMD 2016 AQMP applies the updated SCAG growth forecasts assumed in the 2016 RTP/SCS. Responding to the context of the RTP guidelines and California state legislation, CVAG's Active Transportation Plan, also within the TPPS, was designed to be completed simultaneously with the TPPS and Regional Arterial Cost Estimate documents. Together, this family of documents serves as CVAG's RTP, listing all regionally significant transportation projects, including roadway projects, active transportation projects, and other improvement projects that have been identified to benefit regional circulation within the Coachella Valley. The CVAG also developed fugitive dust ordinances that include (1) dust control plans for each construction project needing a grading permit; (2) plans to pave or chemically treat unpaved surfaces if daily vehicle trips exceed 150; (3) imposition of 15 mph speed limits for unpaved surfaces if daily vehicle trips do not exceed 150; (4) paving or chemical treatment of unpaved parking lots; and (5) actions to discourage use of unimproved property by off-highway vehicles.

2.2.3.3 City of Desert Hot Springs

Policies pertaining to improving air quality are addressed in the air quality element of the environmental resources section of the general plan. Policies associated with air quality associated are presented as follows (City of Desert Hot Springs 2000):

Policy 1: The City shall coordinate and cooperate with CVAG and SCAQMD in the on going monitoring and management of major pollutants affecting the City and region, with particular focus on PM_{10}, and shall provide all required reporting to be included in SCAQMD's annual report.

Policy 2: The General Plan Land Use Element shall be developed and maintained to locate air pollution point sources, such as manufacturing facilities, at an appropriate distance from residential areas and other sensitive receptors.

Policy 3: The City shall promote the development of pedestrian-oriented retail centers, as well as community-wide multi-use trails and bike paths, dedicated bike lanes and other desirable alternatives to motor vehicle traffic.

Policy 4: The City shall promote the appropriate and cost-effective development and coordination of mass transit/shuttle service linking residential, shopping, resort and commercial centers of the City, and participate with CVAG, Southern California Association of Governments and public and private service providers to improve and optimize regional transportation services.

Policy 5: The City shall encourage the use of clean alternative energy sources for transportation, heating and cooling whenever practical.

Policy 6: All development proposals brought before the City will be reviewed for potential adverse effects on air quality and will be required to mitigate any significant impacts.

Many air quality strategies result in co-benefits with reducing GHG emissions. See Section 3.2.3.3, City of Desert Hot Springs, for a discussion of the City's GHG emission reduction policies.

The City also enacted the *City of Desert Hot Springs PM_{10} Fugitive Dust Control Ordinance*, Ordinance 2003-16, as a practical tool for developers, consultants, and contractors to report on air quality impacts and mitigation measures associated with individual developments (City of Desert Hot Springs 2003). The purpose of the ordinance is to establish minimum requirements for construction and demolition activities and other specified sources in order to reduce manufactured fugitive dust and the corresponding PM_{10} emissions.

2.3 Regional and Local Air Quality Conditions

2.3.1 Coachella Valley Portion of the Salton Sea Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not

enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS. Table 2 depicts the current attainment status of the Project site with respect to the NAAQS and CAAQS. The attainment classifications for the criteria pollutants are outlined in Table 2.

Table 2
Coachella Valley Portion of the Salton Sea Air Basin Attainment Classification

Pollutant	Designation/Classification	
	Federal Standards[1]	*State Standards*
Ozone (O_3) – 1 hour	No federal standard	**Nonattainment**
O_3 – 8 hours	**Severe nonattainment**	**Nonattainment**
Nitrogen dioxide (NO_2)	Unclassifiable/attainment	Attainment
Carbon monoxide (CO)	Unclassifiable/attainment	Attainment
Sulfur dioxide (SO_2)	Unclassifiable/attainment	Attainment
Coarse particulate matter (PM_{10})	**Serious nonattainment**	**Nonattainment**
Fine particulate matter ($PM_{2.5}$)	Unclassifiable/attainment	Attainment
Lead	Unclassifiable/attainment	Attainment
Hydrogen sulfide	No federal standard	Unclassified
Sulfates	No federal standard	Attainment
Visibility-reducing particles	No federal standard	Unclassified
Vinyl chloride	No federal standard	No designation

Source: SCAQMD 2017.
Notes: Bold text = not in attainment; Attainment = meets the standards; Attainment/maintenance = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify; Unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.
[1] The level of attainment is based on the air quality data, emissions and emissions-related data, meteorology, geography/topography, and jurisdictional boundaries of the planning area.

In summary, the SSAB is designated as a nonattainment area for federal and state O_3 standards and federal and state PM_{10} standards. The SSAB is designated as an attainment area for federal and state CO, $PM_{2.5}$, NO_2, and SO_2 standards.

Despite the current nonattainment status, air quality within the SSAB has generally improved since the inception of air pollutant monitoring in 1976. This improvement is mainly due to lower-polluting on-road motor vehicles, more stringent regulation of industrial sources, and the implementation of emission reduction strategies by the SCAQMD. This trend toward cleaner air

has occurred in spite of continued population growth. Despite this growth, air quality has improved significantly over the years, primarily due to the impacts of the region's air quality control program. PM_{10} levels have declined almost 50% since 1990, and $PM_{2.5}$ levels have also declined 50% since measurements began in 1999 (SCAQMD 2013). Similar improvements are observed with O_3, although the rate of O_3 decline has slowed in recent years.

2.3.2 Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The SCAQMD monitors local ambient air quality in the region of the Project site. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The most recent background ambient air quality data from 2014 to 2016 are presented in Table 3. The Palm Springs monitoring station, located at 590 Racquet Club Road, Palm Springs, California, is the nearest air quality monitoring station to the Project site, located approximately 7.6 miles southeast of the Project site. The data collected at this station are considered representative of the air quality experienced in the Project vicinity. Air quality data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ from the Palm Springs monitoring station are provided in Table 3. Because SO_2 measurements are not monitored at the Palm Springs monitoring station, the measurements were taken from the Rubidoux monitoring station (1588 Mission Boulevard, Rubidoux, California, approximately 48 miles west of the Project site). The number of days exceeding the ambient air quality standards is also shown in Table 3.

Table 3
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2014	*2015*	*2016*	*2014*	*2015*	*2016*
Ozone (O_3)										
Palm Springs	ppm	Maximum 1-hour concentration	State	0.09	0.108	0.102	0.103	9	3	6
	ppm	Maximum 8-hour concentration	State	0.070	0.093	0.093	0.092	61	51	48
			Federal	0.070	0.0933	0.092	0.092	55	47	46
Nitrogen Dioxide (NO_2)										
Palm Springs	ppm	Maximum 1-hour concentration	State	0.18	0.046	0.041	0.042	0	0	0
			Federal	0.100	0.046	0.042	0.043	0	0	0
	ppm	Annual concentration	State	0.030	—	0.006	0.006	—	0	0
			Federal	0.053	—	0.0006	0.0006	—	0	0
Carbon Monoxide (CO)										

Table 3
Local Ambient Air Quality Data

Monitoring Station	Unit	Averaging Time	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
					2014	*2015*	*2016*	*2014*	*2015*	*2016*
Palm Springs	ppm	Maximum 1-hour concentration	State	20	2.2	2.0	3.1	0	0	0
			Federal	35	2.2	2.0	3.1	0	0	0
	ppm	Maximum 8-hour concentration	State	9.0	0.8	0.7	1.5	0	0	0
			Federal	9	0.8	0.7	1.5	0	0	0
Sulfur Dioxide (SO_2)										
Rubidoux	ppm	Maximum 1-hour concentration	Federal	0.075	0.056	0.019	0.056	0	0	0
	ppm	Maximum 24-hour concentration	Federal	0.14	0.01	0.01	0.01	0	*0*	*0*
	ppm	Annual concentration	Federal	0.030	0.026	0.027	0.023	0	0	0
Coarse Particulate Matter (PM_{10})[a]										
Palm Springs	µg/m³	Maximum 24-hour concentration	State	50	56.0	183.0	—	— (2)	— (2)	— (-)
			Federal	150	313.8	199.0	447.2	1.1 (1)	1.0 (1)	1.1 (1)
	µg/m³	Annual concentration	State	20	—	—	—	—	—	—
Fine Particulate Matter ($PM_{2.5}$)[a]										
Palm Springs	µg/m³	Maximum 24-hour concentration	Federal	35	11.4	22.7	14.7	0	0	0
	µg/m³	Annual concentration	State	12	—	—	5.4	—	—	0
			Federal	12.0	—	—	5.4	—	—	0

Sources: CARB 2016c; EPA 2016c.

Notes: — = not available; µg/m3 = micrograms per cubic meter; ND = insufficient data available to determine the value; ppm = parts per million Data taken from CARB iADAM (http://www.arb.ca.gov/adam) and EPA AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.

Exceedances of federal and state standards are only shown for O_3 and particulate matter. Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour ozone, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.

[a] Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

2.4 Significance Criteria and Methodology

2.4.1 Thresholds of Significance

Appendix G of the CEQA guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts. Based on Appendix G of the CEQA Guidelines, the Project would have a significant impact on air quality if the Project would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O_3 precursors).
4. Expose sensitive receptors to substantial pollutant concentrations.
5. Create objectionable odors affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the Project would have a significant impact on air quality. The SCAQMD has established Air Quality Significance Thresholds, as revised in March 2015 (SCAQMD 2015), sets forth quantitative emissions thresholds below which a proposed project would not have a significant impact on ambient air quality. Proposed project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4, SCAQMD Air Quality Significance Thresholds, are exceeded.

A proposed project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3 (see Table 1), which is a nonattainment pollutant, if the Project's construction or operational emissions would exceed the SCAQMD VOC or NO_x threshold shown in Table 4. These emissions-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly (see the discussion of O_3 and its sources in Section 2), and the effects of an individual proposed project's emissions of O_3 precursors on levels in ambient air cannot be determined through air quality models or other quantitative methods.

Table 4
South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction (pounds per day)*	*Operation (pounds per day)*
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3
TACs and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥ 10 in 1 million Chronic and acute hazard index ≥ 1.0 (proposed project increment)	
Odor	Proposed project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants[c]		
NO_2 1-hour average NO_2 annual arithmetic mean	SCAQMD is in attainment; proposed project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; proposed project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
PM_{10} 24-hour average PM_{10} annual average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation) 1.0 μg/m³	
$PM_{2.5}$ 24-hour average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation)	

Source: SCAQMD 2015.
Notes: SCAQMD = South Coast Air Quality Management District; VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; TAC = toxic air contaminant; NO_2 = nitrogen dioxide; ppm = parts per million; μg/m³ = micrograms per cubic meter
GHG emissions thresholds for industrial proposed projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not include included in Table 4 because they will be addressed within the GHG emissions analysis and not the air quality study.

[a] The phase out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and non-carcinogens.
[c] Ambient air quality standards for criteria pollutants are based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality threshold are based on SCAQMD Rule 403.

In addition to the emission-based thresholds listed in Table 4, SCAQMD also recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project as a result of construction activities. Such an evaluation is referred to as a localized

significance threshold (LST) analysis. For proposed project sites of 5 acres or less, the *Localized Significance Threshold Methodology* (SCAQMD 2009) includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO_2 and CO, PM_{10} and $PM_{2.5}$) without performing dispersion modeling. For a project site of 5 acres or more, the lookup tables can still be used if the proposed project disturbs less than 5 acres per day. The Project site is approximately 160 acres; however, only 5 acres are estimated to be permanently disturbed due to the Project. Additionally, the Project would disturb less than 1 acre per day, as discussed in detail in the following text; therefore, it is appropriate to use the lookup tables for the LST evaluation.

The LST significance thresholds for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of a proposed project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM_{10} represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for $PM_{2.5}$ is intended to ensure that construction emissions do not contribute substantially to existing exceedances of the $PM_{2.5}$ ambient air quality standards. The allowable emission rates depend on the following parameters:

- Source-receptor area (SRA) in which the proposed project is located
- Size of the proposed project site
- Distance between the proposed project site and the nearest sensitive receptor (e.g., residences, schools, and hospitals)

The Project site is located in SRA 30 (Coachella Valley). The SCAQMD provides guidance for applying CalEEMod to the LSTs. LST pollutant screening level concentration data are currently published for 1-, 2-, and 5-acre sites for varying distances. Due to site constraints, including size and topography, that would place limits on the amount of construction activities and number of equipment that can operated concurrently, the Project would disturb approximately 1 acre per day. Therefore, using the LST for a 1-acre site is appropriate for the Project.

The nearest sensitive-receptor land use (an existing resident) is located approximately 250 feet from the closest area of disturbance. As such, the LST receptor distance was assumed to be 164 feet (50 meters). The LST values from the SCAQMD lookup tables for SRA 30 (Coachella Valley) for a 1-acre Project site and a receptor distance of 50 meters are shown in Table 5.

Table 5
Localized Significance Thresholds for Source-Receptor Area 30 (Coachella Valley)

Pollutant	Threshold (pounds per day)
NO_2	166
CO	1,387
PM_{10}	13
$PM_{2.5}$	5

Source: SCAQMD 2009.
Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter
LST thresholds were determined based on the values for 1-acre site at a distance of 50 meters from the nearest sensitive receptor.

2.4.2 Approach and Methodology

2.4.2.1 Construction

Emissions from the construction phase of the Project were estimated using CalEEMod Version 2016.3.2 (CAPCOA 2017). Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the Project Applicant and CalEEMod default values when Project specifics were not known.

For purposes of estimating Project emissions, and based on information provided by the Project Applicant at the time that the air quality modeling was conducted, it is assumed that construction of the Project would commence in November 2018[5] and would last approximately 13 months, ending in December 2019. Turbine decommissioning work was divided into two discreet sub-phases. The first sub-phase would involve decommissioning existing turbines within the grading footprint of the Project while the second sub-phase would involve decommissioning of all remaining turbines. The analysis contained herein is based on the following assumptions (duration of phases is approximate):

- Existing turbine decommissioning (1st phase): 2 months (November 2018–April 2019)
- Construction equipment and materials mobilization/laydown: 2 weeks (April 2019)
- Site preparation/grading: 3 months (April 2019–February 2019)
- Grading/re-grading of access roads: 3 months (February 2019–April 2019)

[5] The analysis assumes a construction start date of November 2018, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

- Installation of collection lines: 2 months (April 2019–May 2019)
- Pouring of foundations: 2 months (May 2019–June 2019)
- Installation of new turbines: 2 months (June 2019–July 2019)
- Existing turbine decommissioning (2nd phase): 6 months (July 2019–December 2019)[6]

Construction worker estimates and vendor truck trips by construction phase were provided by the Project Applicant. The number of haul truck trips was estimated based on an average truck size of 16 cubic yards. CalEEMod default trip length values were used for the distances for all construction-related trips. The Project assumed an average concrete delivery truck of 8 cubic yards and approximately 592 cubic yards of concrete needed per new turbine installation. The demolition of the existing turbines was assumed to require approximately four semi-trailers and four haul trucks per existing turbine to be removed. The Project is anticipated to use up to 16,000 gallons per day of water for dust suppression during earth-moving phases.

The construction equipment mix and vehicle trips used for estimating the Project-generated construction emissions are shown in Table 6.

Table 6
Construction Workers, Vendor Trips, and Equipment Use per Day

	One-Way Vehicle Trips			Equipment		
Construction Phase	*Average Daily Worker Trips*	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Turbine Decommissioning (1st Phase)	24	20	136	Air Compressors	4	8
				Cranes	2	8
				Generator Sets	4	8
				Tractors/Loaders/Backhoes	2	4
Mobilization/Laydown	12	6	0	Forklifts	1	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	2	4
				Tractors/Loaders/Backhoes	1	4
Site Prep/Grading	14	4	0	Forklifts	1	8

[6] Emissions from the ultimate decommissioning and removal of the project were not estimated. Decommissioning of the project is expected to require less activity than what was estimated for construction of the project. As activity would be less, emissions would also be less during decommissioning. Furthermore, emissions from construction equipment and vehicles would be less during decommissioning than during construction as engines are expected to be cleaner and more efficient in the future.

Table 6
Construction Workers, Vendor Trips, and Equipment Use per Day

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	1	4
				Tractors/Loaders/Backhoes	2	4
Roads	24	2	0	Forklifts	1	8
				Graders	3	4
				Rollers	3	4
				Rubber-Tired Dozers	3	4
				Tractors/Loaders/Backhoes	2	4
Collection	18	4	0	Cranes	1	8
				Excavators	1	4
				Forklifts	2	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	1	4
				Tractors/Loaders/Backhoes	1	4
				Trenchers	1	4
Foundations	14	28	0	Excavators	1	4
				Forklifts	1	8
				Graders	1	4
				Rollers	1	4
				Rubber-Tired Dozers	2	4
				Tractors/Loaders/Backhoes	1	4
Install	18	24	0	Cranes	4	8
				Forklifts	2	8
				Rollers	1	4
				Rubber-Tired Dozers	1	4
				Trenchers	1	4
Turbine Decommissioning (2nd Phase)	24	20	418	Air Compressors	4	8
				Cranes	2	8
				Generator Sets	4	8
				Tractors/Loaders/Backhoes	2	4

Notes: See Appendix A for details.

The decommissioning stage of the Project consists of dismantling and removing the existing wind turbine generators (WTG), removing turbine access roads not required for the Project, and removing the existing overhead collection line and poles, if elected not to re-use them.

The decommissioning process for the Project is expected to follow these steps:

- The contractor will mobilize staff and equipment to perform the work, including setting up a field office, hiring personnel, and arranging for utilities, along other general decommissioning requirements.
- Construction permits would be obtained, and a stormwater pollution prevention plan, a spill prevention control and countermeasure plan, and other documents as required by the City, County, and Coachella Valley Water District regulations would be submitted prior to the start of decommissioning field operations. These documents include a Project health and safety plan, revegetation plan, site reclamation and monitoring plan, construction notification plan, noxious weed and invasive species control plan, dust control plan, and traffic control plan for the decommissioning phase of the Project.
- Cranes and other construction equipment sufficient to dismantle and remove the existing WTGs would be mobilized to the site.
- Gearboxes, transformers, and hydraulic systems would be drained of fluids, which would be put into appropriate containers and would be transported and disposed of in accordance with all state and federal environmental regulations.
- The contractor would dismantle and remove the rotor, nacelle, towers, and transformers, and transport the entire WTG off site. It is anticipated that the towers and nacelle would be reduced to manageable-sized pieces on site to facilitate movement off-site to recycling facilities. Blades would be cut up into manageable- and appropriately sized pieces to be hauled to an appropriate recycling facility or to an approved disposal site. If the resale market for used wind turbines and components is viable, some of the turbines and components, such as blades, may be transported off site intact for resale.
- All underground cables would be de-energized and abandoned in place.
- Crane paths would be de-compacted, regraded, and restored to as close as reasonably possible to pre-construction condition.
- The use of temporary staging areas during decommissioning would be kept to a minimum. If temporary staging areas are required, they will also likely be used for the construction phase of the Project, after which they would be restored and re-vegetated after use.

- The Project site would be cleaned, and any remaining debris would be removed and disposed of off-site.

Where feasible, the existing network of permanent access roads would be retained and reused for the new wind turbines. In addition to the existing roads, permanent access and maintenance roads would be constructed to provide access and circulation within the Project. These access roads will consist of 16-foot-wide permanent roads to provide access to each wind turbine and ancillary equipment. These same permanent access roads would be used during construction, although the width of these roads may be temporarily increased to up to 36 feet wide to accommodate cranes and larger construction equipment. This was estimated to be a total of 9.6 acres of temporary disturbance and 4.27 acres of permanent disturbance for access roads.

While an existing, on-site laydown area may be temporarily expanded and used to provide construction parking and stage wind turbine components, construction equipment, and construction materials, it is more likely that an existing, off-site laydown area would be used to stage these materials and provide construction parking. Steel construction containers would be used to securely store specialized equipment inside the perimeter of the laydown area. If on-site, the temporary laydown and parking area would be placed strategically within the Project to optimize construction activities while also minimizing off-site visual impacts to the extent feasible. After construction, all temporary disturbances and construction containers associated with the staging/storage areas would be removed, and these areas would be restored.

An approximately 200-foot by 300-foot temporary work area for each wind turbine site would be used for the crane pad, equipment laydown, and other construction-related needs. Within this temporary work area, a crane pad is required for supporting the large tower erection crane. The crane pad will consist of a compacted native soil or compacted aggregate base gravel area. The topsoil from the crane pads, if any, would be used at adjacent locations during restoration activities. Upon completion of construction, gravel with a minimum approximately 12-foot width would be placed around each approximately 18-foot-diameter reinforced concrete turbine pedestal to provide truck access. The balance of the cleared area would be revegetated.

To support the construction crane for turbine erection, a compacted-soil crane pad with a maximum slope of 1.0% is required. The construction crane pad will not have an asphalt surface, and underlying soils would be compacted to provide a soil bearing capacity designed to provide a stable foundation for the crane. In locations where this is not feasible, a different type of crane mat would be used to stabilize the crane.

The Project's complete electrical collector system would consist of a network of circuits that would collect and deliver electricity from each of the wind turbine generators to the existing,

SCE-owned Venwind substation located outside the Project boundary to the south-southwest. The collector system typically includes three-phase conductor wires, fiber-optic cable, and a copper ground-conductor wire.

There is an existing overhead collection system within the Project boundary that is also SCE-owned and is being used by the existing wind energy project. The Project may either use all of this existing system to deliver electricity into the Venwind substation, or use a portion of this system in conjunction with a new overhead or underground collector system (or combination, thereof). Alternatively, it could install an entirely new overhead or underground collector system (or combination, thereof). An approximately 24-foot-wide temporary disturbance would be required along the installation path for portions of the new collector system that may be installed below grade. This system would follow new and existing Project access roads to the extent possible in order to minimize the temporarily disturbed areas associated with the installation. The underground system would be placed within an approximately 48-inch-deep and, at a minimum, 12-inch-wide cable trench generally located along the length of the turbine access roads. Any topsoil would be stripped and set aside as trenching occurred, and then it would be replaced as the uppermost layer during backfill.

For portions of a new collector system that may be installed overhead and requiring new poles, new poles would be installed along its path every approximately 180 feet, depending on terrain and design requirements. Augers would be used to bore the holes that the poles would be placed into and backfilled and compacted as necessary.

2.4.2.2 Operation

The Project will not require an on-site operations and maintenance (O&M) facility. The existing remote O&M building and yard will store critical spare wind turbine parts and provide a building for maintenance services. The facility includes permanent administrative, maintenance, and storage building structures. Routine Project maintenance will include the periodic clearing of sand (as currently occurs) from within the switchyard fences and Project access roads due to high quantities of sand blowing into the area and accumulating in areas where wind velocities are slowed by fences, turbine towers, and utility poles.

To operate the existing wind energy facilities, the Project Applicant employs approximately 10 people. Once repowered, the same operations team would continue to work on the Project and on the Project site. No net increase in the number of people employed and working on the Project site would occur. Activities associated with long-term operations and maintenance were not quantified because they would not increase over what currently exists.

Future Decommissioning

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused or sold for scrap. Decommissioning activities are anticipated to result in similar intensity of impacts as those associated with decommissioning of the existing wind turbines. For this reason, impacts associated with future decommissioning of the Project's new wind turbines would be similar, if not nearly identical, to those impacts related to decommissioning of the existing 69 wind turbines that are currently found on-site.

2.5 Impact Analysis

2.5.1 Would the Proposed Project Conflict with or Obstruct Implementation of the Applicable Air Quality Plan?

As previously discussed, the Project site is located within the SSAB under the jurisdiction of the SCAQMD, which is the local agency responsible for administration and enforcement of air quality regulations for the area. The SCAQMD has established criteria for determining consistency with the AQMP, currently the 2016 AQMP, in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993). The criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** The Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2:** The Project will not exceed the assumptions in the AQMP or increments based on the year of Project buildout and phase.

Consistency Criterion No. 1

Section 2.5.2 evaluates the Project's potential impacts in regards to CEQA Guidelines Appendix G Threshold 2 (the Project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation impact analysis). As discussed in Section 2.5.2, the Project would not result in an exceedance of SCAQMD thresholds during construction for any criteria air pollutant. Therefore, the Project would not result in an increase in the frequency or severity of existing air quality violations and would not conflict with Consistency Criterion No. 1 of the SCAQMD CEQA Air Quality Handbook.

Consistency Criterion No. 2

While striving to achieve the NAAQS for O_3 and $PM_{2.5}$ and the CAAQS for O_3, PM_{10}, and $PM_{2.5}$ through a variety of air quality control measures, the 2016 AQMP also accommodates planned growth in the SSAB. Proposed projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors (e.g., population and employment) is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook).

The Project site is located within the "I-E" (Industrial-Scale Energy Production) zone. According to Section 17.16.140 of the City's Zoning Code, wind energy conversion systems (WECS) subject to the standards and development criteria contained in Section 17.16.140(E) are conditionally permitted in the commercial and industrial zoning districts. According to the provisions of Section 17.16.140(A) of the City's Zoning Code, "a Conditional Use Permit process for a commercial WECS is intended to regulate and provide for the installation of commercial WECS which are made feasible by the strong prevailing winds within certain areas of the City designated by the General Plan. The conditions of the permit are meant to ensure that a safe and beneficial environment, for both the WECS development and the adjacent properties, is provided" (City of Desert Hot Springs 2017).

The Project as a whole would be considered consistent with the existing land use and zoning, which were used to develop the assumptions in the 2016 AQMP. Additionally, the Project would not directly or indirectly promote population growth or increase trips in the region because it will employ approximately the same number of people currently employed on the project site. Therefore, the Project would not exceed the assumptions of the 2016 AQMP. Accordingly, the Project would meet Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook.

Summary

As described previously, the Project would not result in an increase in the frequency and severity of existing air quality violations and would not conflict with Consistency Criterion No. 1. Also, implementation of the Project would not exceed the demographic growth forecasts in the SCAG 2016 RTP/SCS; therefore, the Project would also be consistent with the SCAQMD 2016 AQMP, which based future emission estimates on the SCAG 2016 RTP/SCS and the CVAG 2017 TPPS. Thus, the Project would not conflict with Consistency Criterion No. 2. Based on these considerations, impacts related to the Project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

2.5.2 Would the Proposed Project Violate Any Air Quality Standard or Contribute Substantially to an Existing or Projected Air Quality Violation?

Construction Emissions

Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

As discussed in Section 2.4.2.1, Construction, criteria air pollutant emissions associated with temporary construction activity were quantified using CalEEMod. Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions estimated. Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by the Project Applicant and are intended to represent a reasonable scenario based on the best information available. Default values provided in CalEEMod were used where detailed Project information was not available.

Implementation of the Project would generate air pollutant emissions from entrained dust, off-road equipment, and vehicle emissions. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. The Project would be required to comply with SCAQMD Rules 403 and 403.1 to control dust emissions generated during the grading activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active sites three times per day depending on weather conditions. The Project would also employ an off-road speed limit of 15 miles per hour. Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, and $PM_{2.5}$.

Table 7 presents the estimated maximum daily construction emissions generated during construction of the Project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix A.

Table 7
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2018	7.27	67.92	43.81	0.09	19.43	6.20
2019	8.12	82.27	50.72	0.11	22.04	5.68
Maximum	*8.12*	*82.27*	*50.72*	*0.11*	*22.04*	*6.20*
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District
See Appendix A for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. These emissions reflect CalEEMod "mitigated" output, which accounts for compliance with SCAQMD Rules 403 and 403.1 (Fugitive Dust), including watering of the Project site and unpaved roads three times per day, and restricting vehicle speed on unpaved roads to 15 miles per hour.

As shown in Table 7, daily construction emissions would not exceed the SCAQMD significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ during construction. Construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions. As such, impacts related to construction would be less than significant. As discussed in Section 2.4.2.2, Operation, the Project would not create any new impacts during operation.

2.5.3 Would the Proposed Project Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for Which the Proposed Project Region Is Non-Attainment Under an Applicable Federal or State Ambient Air Quality Standard (Including Releasing Emissions Which Exceed Quantitative Thresholds For Ozone Precursors)?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, proposed project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a proposed project's individual emissions would have a cumulatively significant impact on air quality.

If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

As discussed in Section 2.3.1, Coachella Valley Portion of the Salton Sea Air Basin Attainment Designation, the SSAB has been designated as a federal and state nonattainment area for O_3 and PM_{10}. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SSAB including motor vehicles, off-road equipment,

and commercial and industrial facilities. Construction of the Project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10}. As indicated in Table 7, Project-generated construction emissions would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, CO, SO_2, PM_{10}, or $PM_{2.5}$. Similarly, the Project would not generate an increase in emissions during operation.

In regards to potential cumulative localized impacts, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation if the Project would exceed SCAQMD thresholds. Criteria air pollutant emissions associated with construction activity of future proposed projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} emissions would be reduced because all future proposed projects would be subject to SCAQMDs Rule 403 and 403.1 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD.

Based on the previous considerations, the Project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Impacts would be considered less than significant.

2.5.4 Would the Proposed Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?

Localized Significance Thresholds Analysis

As discussed in Section 2.1.3, Sensitive Receptors, sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The nearest sensitive-receptor land use (existing residents) is located approximately 250 feet from the closest area of disturbance. As such, the LST receptor distance was assumed to be 164 feet (50 meters), which is the longest distance provided by the SCAQMD lookup tables.

An LST analysis has been prepared to determine potential impacts to nearby sensitive receptors during construction of the Project. As indicated in the discussion of the thresholds of significance (Section 2.4, Significance Criteria and Methodology), the SCAQMD also recommends the evaluation of localized NO_2, CO, PM_{10}, and $PM_{2.5}$ impacts as a result of construction activities to sensitive receptors in the immediate vicinity of the Project site. The impacts were analyzed using methods consistent with those in the SCAQMD's *Final Localized Significance Threshold Methodology* (2009). According to the *Final Localized Significance*

Threshold Methodology, "off-site mobile emissions from the Project should not be included in the emissions compared to the LSTs" (SCAQMD 2009). Hauling of soils and construction materials associated with the Project construction is not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways. Emissions from the trucks would be relatively brief in nature and would cease once the trucks pass through the main streets.

Construction activities associated with the Project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis. The maximum allowable daily emissions that would satisfy the SCAQMD localized significance criteria for SRA 30 are presented in Table 8 and compared to the maximum daily on-site construction emissions generated during the Project.

Table 8
Localized Significance Thresholds Analysis for Project Construction

Maximum On-Site Emissions	NO_2	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day			
Construction Emissions	75.24	47.57	4.02	3.82
SCAQMD LST	*166*	*1,387*	*13*	*5*
LST Exceeded?	**No**	**No**	**No**	**No**

Source: SCAQMD 2009.
Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold
See Appendix A for detailed results.
Localized significance thresholds are shown for 1-acre project sites corresponding to a distance to a sensitive receptor of 50 meters.
These estimates reflect control of fugitive dust required by SCAQMD Rules 403 and 403.1, including watering of the Project site and unpaved roads three times per day, and restricting vehicle speed on unpaved roads to 15 miles per hour.

As shown in Table 8, construction activities would not generate emissions in excess of site-specific LSTs; therefore, site-specific impacts during construction of the Project would be less than significant.

Health Impacts of Toxic Air Contaminants

In addition to impacts from criteria pollutants, Project impacts may include emissions of pollutants identified by the state and federal government as TACs or HAPs. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal HAPs, and is adopting appropriate control measures for sources of these TACs. The following measures are required by state law to reduce diesel particulate emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use Off-Road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485, of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks during construction of the Project and the associated health impacts to sensitive receptors. The closest sensitive receptors would be residents approximately 250 feet away. As shown in Table 8, maximum daily particulate matter (PM_{10} or $PM_{2.5}$) emissions generated by construction equipment operation and from hauling of soil during grading (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation, would be well below the SCAQMD significance thresholds. The Project would also not emit any new TAC emissions during operation. Therefore, the impact would be less than significant.

Health Impacts of Carbon Monoxide

Mobile source impacts occur on two scales of motion. Regionally, Project-related travel would add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed and the SSAB. Locally, Project-generated traffic would be added to the City's roadway system near the Project site during construction. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SSAB is steadily decreasing.

The Project would have trip generation associated with construction worker vehicles and vendor trucks. The California Code of Regulations, 40 CFR 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and PM_2 Concentrations (hot-spot analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any

individual site" (40 CFR 93.123). While project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 13 months and would not require a project-level construction hotspot analysis. Because the project would not result in long-term operational vehicular trips, an operational CO hotspot evaluation is also not required. As such, potential Project-generated impacts associated with CO hotspots would be less than significant.

Health Impacts of Other Criteria Air Pollutants

Construction and operation of the Project would result in emissions that would not exceed the SCAQMD thresholds for criteria air pollutants including VOC, CO, SO_x, $PM_{10,}$ or $PM_{2.5}$. VOCs would be associated with motor vehicles and construction equipment; however, Project-generated VOC emissions would not result in the exceedances of the SCAQMD thresholds as shown in Table 7.

VOCs and NO_x are precursors to O_3, for which the SSAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SSAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 AAQS tend to occur between April and October, when solar radiation is highest. The holistic effect of a single proposed project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO_x emissions associated with Project construction could minimally contribute to regional O_3 concentrations and the associated health impacts. However, as emissions thresholds were not exceeded for either pollutant, health effects would be considered less than significant.

Construction of the Project would also not exceed thresholds for PM_{10} and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or would obstruct the SSAB from coming into attainment for these pollutants. The Project would also not result in substantial DPM emissions during construction and, therefore, would not result in significant health effects related to DPM exposure. Additionally, the Project would be required to comply with SCAQMD Rules 403 and 403.1, which limit the amount of fugitive dust generated during construction. Due to the minimal contribution of particulate matter during construction, health impacts would be considered less than significant.

Construction of the Project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. Health impacts that result from NO_2 and NO_x include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, Project construction would be relatively short term, and off-road construction equipment would be operating at various portions of the Project and would not be concentrated in one portion of the site at any one time. In addition, existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Construction of the Project would not require use of any stationary sources that would create substantial, localized NO_x impacts. Therefore, potential health impacts associated with NO_2 and NO_x would be considered less than significant.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots were discussed previously and are determined to be a less-than-significant impact. Thus, the Project's CO emissions would not contribute to significant health effects associated with this pollutant. In summary, construction of the Project would not result in exceedances of the SCAQMD significance thresholds for all criteria pollutants. Therefore, the potential health impacts associated with criteria air pollutants are considered less than significant.

Exposure to Valley Fever

As discussed in Section 2.1.2.2, Non-Criteria Air Pollutants, valley fever is not highly endemic to Riverside County and within Riverside County the incidents rate in Desert Hot Springs is very low, accounting for only 0.9% of Riverside County's incidents in 2015 (Riverside University Health System Public Health 2016). The Project will also employ dust mitigation measures by watering three times per day and limiting speed on unpaved roads to 15 miles per hour. The Project will also be constructed in accordance with the SCAQMD Rules 403 and 403.1, which limits the amount of fugitive dust generated during construction. As previously mentioned, the nearest sensitive-receptor land use (existing residents) is located approximately 250 feet from the closest area of disturbance. Therefore, the Project would have a less-than-significant impact with respect to valley fever exposure for sensitive receptors.

2.5.5 Would the Proposed Project Create Objectionable Odors Affecting a Substantial Number of People?

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the Project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project would not create any new sources of odor during operation. Therefore, Project operations would result in an odor impact that is less than significant.

3 GREENHOUSE GAS EMISSIONS

3.1 Environmental Setting

3.1.1 Climate Change Overview

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

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

The scientific record of Earth's climate shows that the climate system varies naturally over a wide range of time scales, and that, in general, climate changes prior to the Industrial Revolution in the 1760s can be explained by natural causes such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and are the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing[7], observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil

[7] Radiative forcing or climate forcing is the difference between insolation (sunlight) absorbed by the Earth and energy radiated back to space. The influences that cause changes to the Earth's climate system altering Earth's radiative equilibrium, forcing temperatures to rise or fall, are called climate forcings. Positive radiative forcing means Earth receives more incoming energy from sunlight than it radiates to space.

fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.3.2, Potential Effects of Climate Change.

3.1.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code, Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). (See also CEQA Guidelines Section 15364.5.)[8] Some GHGs such as CO_2, CH_4, and N_2O occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases such as HFCs, PFCs, and SF_6, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[9]

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

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

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water),

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

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

especially the use of commercial and organic fertilizers, manure management, industrial processes (e.g., in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and the use of N_2O as a propellant (e.g., in rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic, powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric O_3-depleting substances (e.g., CFCs, HCFCs, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to O_3-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the O_3-depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF_6 is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** NF_3 is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

3.1.3 Global Warming Potential

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

a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2e).

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

3.2 Regulatory Setting

3.2.1 Federal Regulations

Massachusetts vs. EPA. On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the EPA Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

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

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

Energy Independence and Security Act. On December 19, 2007, President George W. Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to

establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards. In response to the previously discussed U.S. Supreme Court ruling, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (EPA 2010).

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

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

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

and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

Clean Power Plan and New Source Performance Standards for Electric Generating Units. On October 23, 2015, EPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO_2 emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the EPA published a final rule (effective October 23, 2015) establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO_2 emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits. Additionally, in March 2017, President Trump directed the EPA Administrator to review the Clean Power Plan in order to determine whether it is consistent with current executive policies concerning GHG emissions, climate change and energy.

Council on Environmental Quality Guidance. On August 5, 2016, the Council on Environmental Quality (CEQ) released final guidance for federal agencies on considering the impacts of GHG emissions (CEQ 2016). This guidance supersedes the draft GHG and climate change guidance released by CEQ in 2010 and 2014. The final guidance applies to all proposed federal agency actions, including land and resource management actions. This guidance explains that agencies should consider both the potential effects of a proposed action on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed action. The guidance recommends that agencies quantify a proposed agency action's projected direct and indirect GHG emissions, taking into account available data and GHG quantification tools that are suitable for the proposed agency action. This guidance was withdrawn by the CEQ on April 5, 2017, as published in the *Federal Register* Volume 82, Number 64, Section 16576 (CEQ 2017).

3.2.2 State Regulations

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes

executive orders, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

State Climate Change Targets

Executive Order S-3-05. EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

AB 32 and CARB's Climate Change Scoping Plan. In furtherance of the goals established in EO S-3-05, the legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million MT (MMT) CO_2e). CARB's adoption of this limit is in accordance with California Health and Safety Code, Section 38550.

Further, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan) in accordance with California Health and Safety Code, Section 38561. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
2. Achieving a statewide renewable energy mix of 33%

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

In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" (BAU)). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the BAU conditions. When the 2020 emissions level proposed projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewable Portfolio Standard (RPS) (12% to 20%), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the BAU conditions.

More recently, in 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (First Update). The stated purpose of the First Update is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050." The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on

track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050." Those six areas are (1) energy, (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), (3) agriculture, (4) water, (5) waste management, and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal.

Based on CARB's research efforts presented in the First Update, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the First Update, CARB recalculated the state's 1990 emissions level using more recent GWPs identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO_2e) and the revised 2020 emissions level proposed projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the BAU conditions.

On January 20, 2017, CARB released the *2017 Climate Change Scoping Plan Update* (Second Update) for public review and comment (CARB 2017a). This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in Senate Bill (SB) 32 (discussed subsequently), including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The Second Update incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the *Short-Lived Climate Pollutant Reduction Strategy* (SLCP Reduction Strategy), a planning document that was adopted by CARB in March 2017, and acknowledges the need for reducing emissions in agriculture and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy and Transportation sectors to inform development of the 2030 Scoping Plan Update (CARB 2016c). When discussing project-level GHG emissions reduction actions and thresholds, the Second Update states achieving no net increase in GHG emissions is the correct overall objective, but it may not be appropriate or feasible for every development project. An inability to mitigate a proposed project's GHG

emissions to zero does not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. The Second Update was approved by CARB's Governing Board on December 14, 2017.

EO B-30-15. EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO_2e. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. Sector-specific agencies in transportation, energy, water, and forestry were required to prepare GHG reduction plans by September 2015, followed by a report on action taken in relation to these plans in June 2016. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

SB 32 and AB 197. SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets; make changes to CARB's membership, and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

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

Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane and fluorinated gases.

Building Energy

Title 24, Part 6. Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. The California Energy Commission (CEC) is required by law to adopt standards every 3 years that are cost effective for homeowners over the 30-year lifespan of a building. These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2016 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2017. The 2016 Title 24 standards will further reduce energy used and associated GHG emissions. In general, single-family homes built to the 2016 standards are anticipated to use about 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2015). The Project would be required to comply with 2016 Title 24 standards because its building construction phase would commence after January 1, 2017.

Title 24, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as California's Green Building Standards (CALGreen), and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings

- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance
- 65% of construction and demolition waste must be diverted from landfills
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements; stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

The California Public Utilities Commission (CPUC), CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. The key policy timelines include (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030.[10] As most recently defined by the CEC in its 2015 *Integrated Energy Policy Report*, a ZNE code building is "one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building" using the CEC's Time Dependent Valuation metric.

Title 20. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space

[10] See CPUC, California's Zero Net Energy Policies and Initiatives, September 18, 2013, accessed at http://www.cpuc.ca.gov/NR/rdonlyres/C27FC108-A1FD-4D67-AA59- 7EA82011B257/0/3.pdf. It is expected that achievement of the ZNE goal will occur through revisions to the Title 24 standards.

heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains the following three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SB 1. SB 1 (2006) established a $3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts (MW) through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building proposed projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses within 10 years of adoption, and to place solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "GoSolarCalifornia," was previously titled "Million Solar Roofs."

AB 1470. This bill established the Solar Water Heating and Efficiency Act of 2007. The bill makes findings and declarations of the legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.

Mobile Sources

AB 1493. In a response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation

in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

EO S-1-07. Issued on January 18, 2007, EO S-1-07 sets a declining LCFS for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

SB 375. SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional MPOs are then responsible for preparing an SCS within their RTP. The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, a metropolitan planning organization (MPO) must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), an SCS does not (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process. In 2010, CARB adopted the SB 375 targets for the regional MPOs. The targets for CVAG are a 10.5% reduction in emissions per capita by 2020 and a 15.4% reduction by 2035.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce

GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The Zero Emissions Vehicle (ZEV) Program will act as the focused technology of the Advanced Clean Cars Program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

EO B-16-12. EO B-16-12 (2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

AB 1236. AB 1236 (2015) as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provides for appeal of that decision to the planning commission, as specified. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. The City's population does not exceed 200,000 so this statute does not apply. Prior to this statutory deadline, in August 2016, the County of San Diego's Board of Supervisors adopted Ordinance No. 10437 adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

SB 350. In 2015, SB 350—the Clean Energy and Pollution Reduction Act—was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code, Section 740.12).

Renewable Energy and Energy Procurement

Senate Bill 1078. SB 1078 (2002) established the RPS program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010.

SB 1368. SB 1368 (2006) requires the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local, publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

SB X1 2. SB X1 2 (2011) expanded the RPS by establishing that 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 MW or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350. SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (e.g., heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

Water

EO B-29-15. In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the

directives have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development proposed projects with smaller landscape areas.

Solid Waste

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

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020.

Increasing the amount of commercial solid waste that is recycled, reused, or composted will reduce GHG emissions primarily by (1) reducing the energy requirements associated with the extraction, harvest, and processing of raw materials; and (2) using recyclable materials that require less energy than raw materials to manufacture finished products (CalRecycle 2012). Increased diversion of organic materials (green and food waste) will also reduce GHG emissions (CO_2 and CH_4) resulting from decomposition in landfills by redirecting this material to processes that use the solid waste material to produce vehicle fuels, heat, electricity, or compost.

Other State Regulations and Goals

EO S-13-08. EO Order S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final *2009 California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009a), and an update,

Safeguarding California: Reducing Climate Risk, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018).

2015 State of the State Address. In January 2015, Governor Brown in his inaugural address and annual report to the legislature established supplementary goals that would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50%, measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

***2016 State of the State Address*.** In his January 2016 address, Governor Brown established a statewide goal to bring per capita GHG emission down to two tons per person, which reflects the goal of the Global Climate Leadership Memorandum of Understanding (Under 2 MOU) to limit global warming to less than 2 degrees Celsius (°C) by 2050. The Under 2 MOU agreement pursues emission reductions of 80% to 95% below 1990 levels by 2050 and/or reach a per capita annual emissions goal of less than two metric tons by 2050. A total of 135 jurisdictions representing 32 countries and 6 continents, including California, have signed or endorsed the Under 2 MOU (Under 2 2016).

3.2.3 Local Regulations

3.2.3.1 South Coast Air Quality Management District

Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to estimate emissions and assess impacts, and mitigations for potentially significant impacts. Although air districts will also address some of these issues on a proposed project-specific basis as responsible agencies, they may provide general guidance to local governments on these issues (SCAQMD 2008). As discussed in Section 3.4.1, Thresholds of Significance, the SCAQMD has recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development proposed projects; however, these thresholds

were not adopted. See Section 2.2.3.1, South Coast Air Quality Management District, for additional discussion on the SCAQMD.

3.2.3.2 Southern California Association of Governments

SB 375 requires MPOs to prepare an SCS in their RTP. As the CVAG is not a MPO, the SCAG is the MPO for the Coachella Valley and the Project area. The SCAG Regional Council adopted the 2012 RTP/SCS in April 2012 (SCAG 2012), and the 2016–2040 RTP/SCS (2016 RTP/SCS) was adopted in April 2016 (SCAG 2016). Both the 2012 and 2016 RTP/SCSs establish a development pattern for the region that, when integrated with the transportation network and other policies and measures, would reduce GHG emissions from transportation (excluding goods movement). Specifically, the 2012 RTP/SCS links the goals of sustaining mobility with the goals of fostering economic development; enhancing the environment; reducing energy consumption; promoting transportation-friendly development patterns; and encouraging all residents affected by socioeconomic, geographic, and commercial limitations to be provided with fair access. The 2012 and 2016 RTP/SCSs do not require that local general plans, specific plans, or zoning be consistent with it but provide incentives for consistency for governments and developers. The current SCAQMD AQMP (2016 AQMP) is based on the SCAG 2016 RTP/SCS demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by SCAG for their 2016–2040 RTP/SCS, the SCAG 2016 RTP/SCS. The SCAG 2016 RTP/SCS takes into account demographic growth forecasts developed by CVAG.

3.2.3.3 City of Desert Hot Springs

General Plan

As discussed in the general plan, policies pertaining to improving air quality are addressed in air quality and energy and mineral resources elements of the general plan. Polices with GHG associated are presented as follows (City of Desert Hot Springs 2000).

Air Quality Element

Policy 3: The City shall promote the development of pedestrian-oriented retail centers, as well as community-wide multi-use trails and bike paths, dedicated bike lanes and other desirable alternatives to motor vehicle traffic.

Policy 4: The City shall promote the appropriate and cost-effective development and coordination of mass transit/shuttle service linking residential, shopping, resort and commercial centers of the City, and participate with CVAG, Southern

California Association of Governments and public and private service providers to improve and optimize regional transportation services.

Policy 5: The City shall encourage the use of clean alternative energy sources for transportation, heating and cooling whenever practical.

Energy and Mineral Resources Element

Policy 1: Promote energy conservation in all areas of community development, including transportation, development planning, public and private sector office construction and operation, as well as in the full range of residential, commercial and industrial projects.

Policy 2: The General Plan and other community plans shall assure an efficient circulation system and land use pattern in the City, which minimizes travel.

Policy 3: Major mixed-use developments, which provide significant employment centers, shall be required to provide convenient and safe access to the public transit system.

Policy 5: Support public and private efforts to develop and operate alternative systems of thermal and electrical production, which take advantage of local renewable resources.

Climate Action Plan

In May 2013, the City's first-ever Climate Action Plan (CAP) was released (City of Desert Hot Springs 2013a). The CAP addresses the major sources of GHG emissions within the City including residential, business, building, transportation, municipal, hospitality/recreation, and education. For each GHG emission source, the CAP suggests a number of programs or policies that can be implemented by the City to meet its goals. These programs and policies are linked with the City's GHG inventory. A portfolio of 80 measures has been presented for implementation over eight years. Some of the measures are already planned or in process, and are included because of their anticipated impact. Each recommendation carries information about results and costs to the community and the City. Only a subset of the measures is required to reach the City's emissions reductions targets. The CAP is the root of a comprehensive suite of sustainability services including the City's 2013 Greenhouse Gas Inventory, its 2013 Energy Action Plan, the Voluntary Green Building Program, a municipal building Energy Benchmarking Policy, and a municipal building Retro Commissioning Policy. Together, these plans, programs, and policies support the CAP and help position the City for cost-effective, energy-efficiency savings, and GHG reductions. The CAP was developed to be consistent with AB 32 and reaching the City's 1990 emission levels by 2020. The measures

within the CAP were developed to ensure the City reaches that goal. The City's CAP is not a qualified GHG reduction plan under CEQA Guidelines Section 15183.5, and thus it cannot be used in a cumulative impacts analysis to determine significance.

3.3 Climate Change Conditions and Inventories

3.3.1 Sources of Greenhouse Gas Emissions

Per the EPA's *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2015* (EPA 2017c), total United States GHG emissions were approximately 6,586,700,000 MT CO_2e in 2015. The primary GHG emitted by human activities in the United States was CO_2, which represented approximately 82.2% of total GHG emissions (5,411,400,000 MT CO_2e). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.3% of CO_2 emissions in 2015 (5,049,800,000 MT CO_2e). Relative to 1990, gross United States GHG emissions in 2015 are higher by 3.5%; down from a high of 15.5% above 1990 levels in 2007. GHG emissions decreased from 2014 to 2015 by 2.3% (153,000,000 MT CO_2e) and overall, net emissions in 2015 were 11.5% below 2005 levels (EPA 2017c).

According to California's 2000–2015 GHG emissions inventory (2017 edition), California emitted 440,360,000 MT CO_2e in 2015, including emissions resulting from out-of-state electrical generation (CARB 2017b). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high global-warming potential substances, and recycling and waste. The California GHG emission source categories (as defined in CARB's 2008 Scoping Plan) and their relative contributions in 2015 are presented in Table 9.

Table 9
Greenhouse Gas Emissions Sources in California

Source Category	Annual GHG Emissions (MT CO_2e)	Percent of Total[a]
Transportation	164,630,000	37%
Industrial[b]	91,710,000	21%
Electric power[c]	83,670,000	19%
Commercial and residential	37,920,000	9%
Agriculture	34,650,000	8%
High global-warming potential substances	19,050,000	4%
Recycling and waste	8,730,000	2%
Total	**440,360,000**	**100%**

Source: CARB 2017b.
Notes: Emissions reflect the 2015 California GHG inventory.
MT CO_2e = metric tons of carbon dioxide equivalent
[a] Percentage of total has been rounded, and total may not sum due to rounding.

[b] The Aliso Canyon natural gas leak event released 1.96 MMT CO_2e of unanticipated emissions in 2015 and 0.52 MMT CO_2e in 2016. These leak emissions will be fully mitigated according to legal settlement and are tracked separately from routine inventory emissions.

[c] Includes emissions associated with imported electricity, which account for 33.74 MMT CO_2e annually.

During the 2000 to 2015 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 14.0 MT per person to 11.3 MT per person in 2015, representing a 19% decrease. In addition, total GHG emissions in 2015 were approximately 1,500,000 MT CO_2e less than 2014 emissions. The declining trend in GHG emissions, coupled with programs that will continue to provide additional GHG reductions going forward, demonstrates that California is on track to meet the 2020 target of 431,000,000 MT CO_2e (CARB 2017b).

The City developed a GHG emission inventory in May 2013 (City of Desert Hot Springs 2013b). The inventory accounted for GHG emissions within the City as well as a detailed look into City operational GHG emissions. Table 10 shows the 2010 community-wide emissions as provided in the 2013 GHG inventory.

Table 10
City of Desert Hot Springs GHG Emissions by Source

Source	Annual GHG Emissions (MT CO_2e)	Percent of Total
Residential buildings	36,050	35.8
Transportation	33,094	32.9
Commercial buildings	15,739	15.6
Fugitive emissions	13,033	12.9
Solid waste	2,289	2.3
Municipal buildings	449	0.5
Total	**100,654**	**100%**

Source: City of Desert Hot Springs 2013b.
Notes: MT CO_2e = metric tons of carbon dioxide equivalent per year.

3.3.2 Potential Effects of Climate Change

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

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a 0.2°C rise in average global

tropospheric temperature per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place.

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

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

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

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

Agriculture. Some of the specific challenges faced by the agricultural sector and farmers include more drastic and unpredictable precipitation and weather patterns; extreme weather events that

range from severe flooding to extreme drought, to destructive storm events; significant shifts in water availably and water quality; changes in pollinator lifecycles; temperature fluctuations, including extreme heat stress and decreased chill hours; increased risks from invasive species and weeds, agricultural pests and plant diseases; and disruptions to the transportation and energy infrastructure supporting agricultural production.

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

Energy. Specific climate change challenges for the energy sector include temperature, fluctuating precipitation patterns, increasing extreme weather events and sea-level rise.

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

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

Public Health. Climate change can impact public health through various environmental changes and is the largest threat to human health in the twenty-first century. Changes in precipitation patterns affect public health primarily through potential for altered water supplies, and extreme events such as heat, floods, droughts, and wildfires. Increased frequency, intensity and duration of extreme heat and heat waves are likely to increase the risk of mortality due to heat related illness as well as exacerbate existing chronic health conditions. Other extreme weather events are likely to negatively impact air quality and increase or intensify respiratory illness such as asthma and allergies.

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

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

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

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

3.4 Significance Criteria and Methodology

3.4.1 Thresholds of Significance

The significance criteria used to evaluate the Project's GHG emissions impacts is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, the Project would have a significant environmental impact if it would (14 CCR 15000 et seq.):

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

Global climate change is a cumulative impact; a proposed project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a proposed project-level under CEQA.

SCAQMD

Neither the State of California nor the SCAQMD has adopted emission-based thresholds of significance for GHG emissions under CEQA. However, in October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development proposed projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This guidance document, which builds on the previous guidance prepared by the CAPCOA, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per year screening level threshold for stationary source/industrial proposed projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008).

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several

times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development proposed projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the proposed project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential proposed projects (3,500 MT CO_2e per year), commercial proposed projects (1,400 MT CO_2e per year), and mixed-use proposed projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial proposed projects. If the proposed project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the proposed project generates GHG emissions in excess of applicable performance standards for the proposed project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per service population for proposed project level analyses and 6.6 MT CO_2e per service population for plan level analyses. If the proposed project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the proposed project efficiency target to Tier 4 levels.

Because the Project is construction only and does not fit into one of the land use types previously outlined, this analysis applies the recommended SCAQMD threshold of 3,000 MT CO_2e per year. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the Project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, compares the amortized construction emissions to the proposed SCAQMD threshold of 3,000 MT CO_2e per year.

3.4.2 Approach and Methodology

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

3.5 Impact Analysis

3.5.1 Would the Proposed Project Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment?

Construction Emissions

Construction of the Project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.4.2.1. Construction of the Project is anticipated to commence in November 2018 and would last approximately 13 months, ending in December 2019. On-site sources of GHG emissions include off-road equipment and off-site sources, including trucks and worker vehicles. Table 11 presents construction emissions for the Project in 2018 and 2019 from on-site and off-site emission sources.

Table 11
Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2018	110.85	0.02	0.00	111.28
2019	476.98	0.08	0.00	479.06
			Total	**590.34**
			30-Year Amortization of Construction Emissions	*19.68*

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent
GHG emissions from water use for dust suppression were modeled in the operational module within CalEEMod.
See Appendix A for complete results.

As shown in Table 11, the estimated total GHG emissions during construction would be approximately 590 MT CO_2e over the construction period. Estimated Project-generated construction emissions amortized over 30 years would be approximately 20 MT CO_2e per year. As with Project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the Project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. The Project would not generate an increase in GHG emissions during operations, as there would be no increased operational activity due to the project. As previously discussed, the SCAQMD significance threshold for the Project is 3,000 MT CO_2e per year. The Project would not exceed this threshold and therefore, the Project's GHG contribution would be not cumulatively considerable and is less than significant.

GHG Emissions Benefits

In keeping with the renewable energy target under the Scoping Plan, and as required by SB 350, the Project would provide a source of renewable energy to achieve the RPS of 50% by 2030. Renewable energy, in turn, potentially offsets GHG emissions generated by fossil-fuel power plants. Based on information from the Project Applicant, the current site produces approximately 7,860 mega-watt hours (MWh) of electricity per year. The Project would produce an estimated 59,000 MWh of electricity per year. The Project would produce an additional 51,140 MWh per year compared to the existing turbines (59,000 MWh minus 7,860 MWh).

In order to quantify the benefits of the increase in renewable energy production, the existing fossil fuel production must be evaluate from the local utility. The latest published GHG emission factor for Southern California Edison is 0.256 MT CO_2e/MWh (Southern California Edison 2017). Southern California Edison reported that 28% of its power mix was renewable in 2016. Therefore, the non-renewable GHG emission factor would be 0.356 MT CO_2e/MWh (see Appendix A for more details). Thus, the Project would provide a potential reduction of 18,206 MT CO_2e per year if the renewable electricity generated by the Project were to be used instead of electricity generated by fossil-fuel sources. Annualized construction emissions are calculated to be 20 MT CO_2e per year. Thus, the net reduction in GHG emissions would be 18,186 MT CO_2e per year resulting in a total of 545,580 MT CO_2e over the 30-year Project lifetime. This reduction is not considered in the significance determination of the Project's GHG emissions, but is provided for disclosure purposes.

Future Decommissioning Emissions

The Project lifespan would be at least 30 years. When the proposed facility is decommissioned, the four wind turbines would be removed from the Project site and the materials would be reused

or sold for scrap. Decommissioning activities are anticipated to result in similar intensity of impacts as those associated with decommissioning of the existing wind turbines. For this reason, impacts associated with future decommissioning of the Project's new wind turbines would be similar, if not nearly identical, to those impacts related to decommissioning of the existing 69 wind turbines that are currently found on-site.

3.5.2 Would The Proposed Project Conflict With an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing The Emissions of Greenhouse Gases?

Consistency with the City of Desert Hot Springs's Climate Action Plan

As discussed in Section 3.2.3.3, the CAP is not a qualified GHG reduction plan according to CEQA Guidelines, Section 15183.5, and, thus, cannot be used in a cumulative impacts analysis to determine significance. Therefore, this discussion of consistency is for informational purposes only. Table 12 provides an overview of the measures and goals within the CAP that are applicable to the Project and the Project's consistency with them. As shown in Table 12, the Project does not conflict with any of the GHG reducing measures or goals within the CAP and, thus, is consistent with the plan. It should also be noted that the Project would not inhibit the City from implementing any of the measures not listed in Table 12 because they do not apply to the Project.

Table 12
Project Consistency with the Climate Action Plan
Greenhouse Gas Emission Reduction Strategies

Sphere	Climate Action Plan Measure	Project Consistency
Where we live – 14	**Solid Waste Diversion:** Increase solid waste diversion rate by an additional 10% to 78.1% by 2020 potentially through awareness programs, recognition, tiered rate structures, and other financial instruments.	**Consistent.** The Project would divert its solid waste in accordance with state and local regulations.
How we build – 4	**Green Building Program:** Promote the voluntary Green Building Program to prepare for enhanced Title 24 requirements and green building standards.	**Consistent.** The Project would be constructed in accordance with the building code adopted at the time of construction.
How we build – 5	**Green Building Support Services:** Advance the Voluntary Green Building Program to mandatory green building requirement with technical support services.	**Consistent.** The Project would be constructed in accordance with the building code adopted at the time of construction.

Table 12
Project Consistency with the Climate Action Plan
Greenhouse Gas Emission Reduction Strategies

Sphere	Climate Action Plan Measure	Project Consistency
How we get around – 14	**Anti-Idling:** Pass ordinance that restricts idling of greater than 5 minutes for all commercial vehicles in specific zones. In accordance with CARB rules regarding idling of commercial Vehicles.	**Consistent.** The Project's vehicles will limit idling during construction to no longer than 5 minutes.
How we govern – 13	**Roof-Mounted Wind Systems:** Create an ordinance to enable residential wind turbines and promote the installation of 1,000 roof-mounted wind turbines on private property by 2020.	**Consistent.** The Project would support existing wind generation within the region by replacing aging wind turbine generators with new, more efficient wind turbines.

Source: City of Desert Hot Springs 2013a.

Consistency with the SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2016 RTP/SCS is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The 2016 RTP/SCS incorporates local land use proposed projections and circulation networks in city and county general plans. The 2016 RTP/SCS is not directly applicable to the Project because the underlying purpose of the 2016 RTP/SCS is to provide direction and guidance by making the best transportation and land use choices for future development. Because the Project does not alter the current use of the property and does not induce growth during operation, development of the Project would not conflict with the critical goals of the 2016 RTP/SCS.

Consistency with CARB's Scoping Plan

As discussed in Section 3.2.2, Potential Effects of Climate Change, the Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[11] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified

[11] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009b).

in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 13 highlights measures that have been, or will be, developed under the Scoping Plan and the Project's consistency with Scoping Plan measures. To the extent that these regulations are applicable to the Project, its inhabitants, or uses, the Project would comply will all regulations adopted in furtherance of the Scoping Plan as required by law.

Table 13
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Transportation Sector		
Advanced Clean Cars	T-1	**Consistent**. Vehicles used on the Project site would be in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low-Carbon Fuel Standard	T-2	**Consistent**. Motor vehicles driven by the Project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Advanced Clean Transit	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 13
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Combined Heat and Power	E-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	**Consistent.** The Project would replace existing aged wind turbine generators with new wind turbine generators to help SCE meet its RPS goals.
Renewables Portfolio Standard (50% by 2050)	N/A	**Consistent.** The Project would replace existing aged wind turbine generators with new wind turbine generators to help SCE meet its RPS goals.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 13
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Water Sector		
Water Use Efficiency	W-1	**Consistent**. The Project would use water for dust suppression during construction. No water use is associated with operation of the Project.
Water Recycling	W-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	**Not applicable**. This measure applies to renewable energy within the water sector. The Project would not prevent CARB from implementing this measure.
Green Buildings		
1. State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
2. Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
3. Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
4. Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks	I-5	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 13
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	**Consistent**. The Project would recycle its recyclable solid waste in accordance with state and local regulations.
Increase Production and Markets for Compost and Other Organics	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Forests Sector		
Sustainable Forest Target	F-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
High GWP Gases Sector		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.
SF_6 Limits in Non-Utility and Non-Semiconductor Applications	H-2	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs in Semiconductor Manufacturing	H-3	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
SF_6 Leak Reduction Gas Insulated Switchgear	H-6	**Not applicable**. The Project would not prevent CARB from implementing this measure.
40% reduction in methane and hydrofluorocarbon (HFC) emissions	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.
50% reduction in black carbon emissions	N/A	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Table 13
Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
Agriculture Sector		
Methane Capture at Large Dairies	A-1	**Not applicable**. The Project would not prevent CARB from implementing this measure.

Source: CARB 2008 and CARB 2017a.
Notes: CARB = California Air Resources Board; CCR = California Code of Regulations; GHG = greenhouse gas; GWP = global warming potential; SB = Senate Bill; SF_6 = sulfur hexafluoride

Based on the analysis in Table 13, the Project would be consistent with the applicable strategies and measures in the Scoping Plan.

The Project would not impede and may help the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. As discussed in Section 3.2.2, EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

To begin, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional

> measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the Second Update, which states (CARB 2017a):

> The Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

The Project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the Project would not exceed the SCAQMD's recommended draft interim threshold of 3,000 MT CO_2e per year (SCAQMD 2008). As discussed in Section 3.4.1, this threshold was established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Because the Project would not exceed the threshold, this analysis provides support for the conclusion that the Project would not impede the state's trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

In addition, as discussed previously, the Project is consistent with the GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. In addition, since the specific path to compliance for the state in regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the Project would be speculative and cannot be identified at this time. The Project's consistency would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets. As discussed in Section 3.5.1, the Project would increase renewable energy production compared to the existing wind turbines and thus would support the goals within SB 32 and EO S-3-05. Based on the considerations previously outlined, the Project would not conflict with an applicable plan, policy, or regulation adopted for the

purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be less than significant.

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APPENDIX A

CalEEMod Output Files

Desert Hot Springs Wind Energy Repowering Project

Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1,000.00	User Defined Unit	5.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2019
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 - Acreage based on disturbed area for project.

Construction Phase - Based on applicant provided construction schedule.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided data.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction data.

Trips and VMT - Based on applicant provided construction assumptions.

On-road Fugitive Dust - Based on distance from Indian Canyon Dr. Road silt loading based on CARB Entrained Paved Road Dust Paved Roat Travel, July 1997.

Demolition -

Grading - CalEEMod defaults.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - No landscaping

Water And Wastewater - Based on 16,000 gallons per day for dust suppression.

Construction Off-road Equipment Mitigation - Water for dust suppression.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	33.00
tblConstructionPhase	NumDays	230.00	22.00
tblConstructionPhase	NumDays	230.00	21.00
tblConstructionPhase	NumDays	20.00	32.00

tblConstructionPhase	NumDays	20.00	97.00
tblConstructionPhase	NumDays	20.00	32.00
tblConstructionPhase	NumDays	20.00	100.00
tblConstructionPhase	NumDays	8.00	35.00
tblConstructionPhase	NumDays	8.00	42.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	AcresOfGrading	10.50	10.00
tblGrading	AcresOfGrading	2.50	13.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00

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tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOnRoadDust	HaulingPercentPave	50.00	89.00
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tblOnRoadDust	VendorPercentPave	50.00	59.30

tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
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tblTripsAndVMT	HaulingTripNumber	0.00	209.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	28.00

tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	0.00	14.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblWater	OutdoorWaterUseRate	0.00	2,960,000.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1025	0.9434	0.6385	1.2500e-003	2.9979	0.0521	3.0500	0.3209	0.0503	0.3712	0.0000	110.8327	110.8327	0.0171	0.0000	111.2590
2019	0.3742	3.6695	2.4426	5.0000e-003	13.5768	0.1868	13.7636	1.4024	0.1781	1.5806	0.0000	444.8409	444.8409	0.0789	0.0000	446.8132
Maximum	**0.3742**	**3.6695**	**2.4426**	**5.0000e-003**	**13.5768**	**0.1868**	**13.7636**	**1.4024**	**0.1781**	**1.5806**	**0.0000**	**444.8409**	**444.8409**	**0.0789**	**0.0000**	**446.8132**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1025	0.9434	0.6385	1.2500e-003	0.2051	0.0521	0.2571	0.0292	0.0503	0.0795	0.0000	110.8325	110.8325	0.0171	0.0000	111.2589
2019	0.3742	3.6695	2.4426	5.0000e-003	0.8774	0.1868	1.0642	0.1073	0.1781	0.2854	0.0000	444.8405	444.8405	0.0789	0.0000	446.8128
Maximum	**0.3742**	**3.6695**	**2.4426**	**5.0000e-003**	**0.8774**	**0.1868**	**1.0642**	**0.1073**	**0.1781**	**0.2854**	**0.0000**	**444.8405**	**444.8405**	**0.0789**	**0.0000**	**446.8128**

	ROG	NOx	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**	**93.47**	**0.00**	**92.14**	**92.08**	**0.00**	**81.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	11-1-2018	1-31-2019	1.2186	1.2186
3	2-1-2019	4-30-2019	0.6334	0.6334
4	5-1-2019	7-31-2019	1.0465	1.0465
5	8-1-2019	9-30-2019	1.0285	1.0285
		Highest	1.2186	1.2186

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	8.8000e-004	9.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	10.4781	10.4781	4.3000e-004	9.0000e-005	10.5155
Total	**8.8000e-004**	**9.0000e-005**	**9.2800e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**10.4959**	**10.4959**	**4.8000e-004**	**9.0000e-005**	**10.5346**

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	8.8000e-004	9.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	10.4781	10.4781	4.3000e-004	9.0000e-005	10.5155
Total	**8.8000e-004**	**9.0000e-005**	**9.2800e-003**	**0.0000**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**3.0000e-005**	**0.0000**	**10.4959**	**10.4959**	**4.8000e-004**	**9.0000e-005**	**10.5346**

	ROG	NOx	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

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Turbine Decommissioning-1	Demolition	11/1/2018	12/14/2018	5	32	
2	Foundation Removal-1	Demolition	11/1/2018	12/14/2018	5	32	
3	Mobilization/Laydown	Site Preparation	12/1/2018	12/14/2018	5	10	
4	Site Prep/Grading	Grading	12/15/2018	2/1/2019	5	35	
5	Roads	Grading	2/1/2019	4/1/2019	5	42	
6	Collection	Building Construction	4/1/2019	5/15/2019	5	33	
7	Foundations	Building Construction	5/15/2019	6/13/2019	5	22	
8	Install	Building Construction	6/15/2019	7/15/2019	5	21	
9	Turbine Decommissioning-2	Demolition	7/15/2019	11/29/2019	5	100	
10	Foundation Removal-2	Demolition	8/1/2019	12/13/2019	5	97	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Turbine Decommissioning-1	Air Compressors	2	8.00	78	0.48
Turbine Decommissioning-1	Concrete/Industrial Saws	0	8.00	81	0.73
Turbine Decommissioning-1	Cranes	1	8.00	231	0.29
Turbine Decommissioning-1	Excavators	0	8.00	158	0.38
Turbine Decommissioning-1	Generator Sets	2	8.00	84	0.74
Turbine Decommissioning-1	Rubber Tired Dozers	0	8.00	247	0.40

Foundation Removal-1	Air Compressors	2	8.00	78	0.48
Foundation Removal-1	Concrete/Industrial Saws	0	8.00	81	0.73
Foundation Removal-1	Cranes	1	8.00	231	0.29
Foundation Removal-1	Excavators	0	8.00	158	0.38
Foundation Removal-1	Generator Sets	2	8.00	84	0.74
Foundation Removal-1	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-1	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Foundation Removal-2	Air Compressors	2	8.00	78	0.48
Foundation Removal-2	Concrete/Industrial Saws	0	8.00	81	0.73
Foundation Removal-2	Cranes	1	8.00	231	0.29
Foundation Removal-2	Excavators	0	8.00	158	0.38
Foundation Removal-2	Generator Sets	2	8.00	84	0.74
Foundation Removal-2	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-2	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Turbine Decommissioning-2	Air Compressors	2	8.00	78	0.48
Turbine Decommissioning-2	Concrete/Industrial Saws	0	8.00	81	0.73
Turbine Decommissioning-2	Cranes	1	8.00	231	0.29
Turbine Decommissioning-2	Excavators	0	8.00	158	0.38
Turbine Decommissioning-2	Generator Sets	2	8.00	84	0.74
Turbine Decommissioning-2	Rubber Tired Dozers	0	8.00	247	0.40
Mobilization/Laydown	Forklifts	1	8.00	89	0.20
Mobilization/Laydown	Graders	1	4.00	187	0.41
Mobilization/Laydown	Rollers	1	4.00	80	0.38
Mobilization/Laydown	Rubber Tired Dozers	2	4.00	247	0.40
Mobilization/Laydown	Rubber Tired Loaders	0	8.00	203	0.36
Mobilization/Laydown	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Roads	Excavators	0	8.00	158	0.38

Roads	Forklifts	1	8.00	89	0.20
Roads	Graders	1	4.00	187	0.41
Roads	Rollers	1	4.00	80	0.38
Roads	Rubber Tired Dozers	1	4.00	247	0.40
Roads	Rubber Tired Loaders	0	8.00	203	0.36
Roads	Scrapers	0	8.00	367	0.48
Roads	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Prep/Grading	Excavators	0	4.00	158	0.38
Site Prep/Grading	Forklifts	1	8.00	89	0.20
Site Prep/Grading	Graders	1	4.00	187	0.41
Site Prep/Grading	Rollers	1	4.00	80	0.38
Site Prep/Grading	Rubber Tired Dozers	1	4.00	247	0.40
Site Prep/Grading	Rubber Tired Loaders	0	8.00	203	0.36
Site Prep/Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Foundations	Cranes	0	8.00	231	0.29
Foundations	Excavators	1	4.00	158	0.38
Foundations	Forklifts	1	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Graders	1	4.00	187	0.41
Foundations	Rollers	1	4.00	80	0.38
Foundations	Rubber Tired Dozers	2	4.00	247	0.40
Foundations	Rubber Tired Loaders	0	8.00	203	0.36
Foundations	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Collection	Cranes	1	8.00	231	0.29
Collection	Excavators	1	4.00	158	0.38
Collection	Forklifts	2	8.00	89	0.20

Collection	Generator Sets	0	8.00	84	0.74
Collection	Graders	1	4.00	187	0.41
Collection	Rollers	1	4.00	80	0.38
Collection	Rubber Tired Dozers	1	4.00	247	0.40
Collection	Rubber Tired Loaders	0	8.00	203	0.36
Collection	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Collection	Trenchers	1	4.00	78	0.50
Collection	Welders	0	8.00	46	0.45
Install	Cranes	4	8.00	231	0.29
Install	Forklifts	2	8.00	89	0.20
Install	Generator Sets	0	8.00	84	0.74
Install	Rollers	1	4.00	80	0.38
Install	Rubber Tired Dozers	1	4.00	247	0.40
Install	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Install	Trenchers	1	4.00	78	0.50
Install	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Turbine Decommissioning-1	5	10.00	10.00	67.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Removal-1	7	14.00	10.00	68.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Removal-2	7	14.00	10.00	208.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Turbine Decommissioning-2	5	10.00	10.00	209.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Mobilization/Laydown	6	12.00	6.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Roads	6	24.00	2.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep/Grading	6	14.00	4.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	7	14.00	28.00	0.00	11.00	5.40	20.00	LD_Mix	HHDT	HHDT
Collection	9	18.00	4.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Install	9	18.00	24.00	0.00	11.00	5.40	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Turbine Decommissioning-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0381	0.3263	0.2394	4.3000e-004		0.0195	0.0195		0.0192	0.0192	0.0000	37.4079	37.4079	4.9600e-003	0.0000	37.5320
Total	**0.0381**	**0.3263**	**0.2394**	**4.3000e-004**		**0.0195**	**0.0195**		**0.0192**	**0.0192**	**0.0000**	**37.4079**	**37.4079**	**4.9600e-003**	**0.0000**	**37.5320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	9.2200e-003	1.1200e-003	3.0000e-005	0.1027	3.0000e-005	0.1027	0.0103	3.0000e-005	0.0103	0.0000	2.5201	2.5201	1.4000e-004	0.0000	2.5236
Vendor	6.4000e-004	0.0181	4.7100e-003	4.0000e-005	0.4894	1.2000e-004	0.4895	0.0489	1.2000e-004	0.0490	0.0000	3.5475	3.5475	3.5000e-004	0.0000	3.5561
Worker	9.6000e-004	7.4000e-004	7.2300e-003	1.0000e-005	0.4898	1.0000e-005	0.4898	0.0490	1.0000e-005	0.0490	0.0000	1.2042	1.2042	6.0000e-005	0.0000	1.2057
Total	**1.8100e-003**	**0.0281**	**0.0131**	**8.0000e-005**	**1.0819**	**1.6000e-004**	**1.0820**	**0.1082**	**1.6000e-004**	**0.1084**	**0.0000**	**7.2718**	**7.2718**	**5.5000e-004**	**0.0000**	**7.2854**

3.2 Turbine Decommissioning-1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0381	0.3263	0.2394	4.3000e-004		0.0195	0.0195		0.0192	0.0192	0.0000	37.4079	37.4079	4.9600e-003	0.0000	37.5319
Total	**0.0381**	**0.3263**	**0.2394**	**4.3000e-004**		**0.0195**	**0.0195**		**0.0192**	**0.0192**	**0.0000**	**37.4079**	**37.4079**	**4.9600e-003**	**0.0000**	**37.5319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	9.2200e-003	1.1200e-003	3.0000e-005	6.5100e-003	3.0000e-005	6.5400e-003	7.0000e-004	3.0000e-005	7.3000e-004	0.0000	2.5201	2.5201	1.4000e-004	0.0000	2.5236
Vendor	6.4000e-004	0.0181	4.7100e-003	4.0000e-005	0.0303	1.2000e-004	0.0304	3.0900e-003	1.2000e-004	3.2100e-003	0.0000	3.5475	3.5475	3.5000e-004	0.0000	3.5561
Worker	9.6000e-004	7.4000e-004	7.2300e-003	1.0000e-005	0.0304	1.0000e-005	0.0304	3.1100e-003	1.0000e-005	3.1200e-003	0.0000	1.2042	1.2042	6.0000e-005	0.0000	1.2057
Total	**1.8100e-003**	**0.0281**	**0.0131**	**8.0000e-005**	**0.0671**	**1.6000e-004**	**0.0673**	**6.9000e-003**	**1.6000e-004**	**7.0600e-003**	**0.0000**	**7.2718**	**7.2718**	**5.5000e-004**	**0.0000**	**7.2854**

3.3 Foundation Removal-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0423	0.3684	0.2768	4.8000e-004		0.0225	0.0225		0.0219	0.0219	0.0000	41.9478	41.9478	6.3800e-003	0.0000	42.1073
Total	**0.0423**	**0.3684**	**0.2768**	**4.8000e-004**		**0.0225**	**0.0225**		**0.0219**	**0.0219**	**0.0000**	**41.9478**	**41.9478**	**6.3800e-003**	**0.0000**	**42.1073**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	9.3600e-003	1.1400e-003	3.0000e-005	0.1042	3.0000e-005	0.1042	0.0105	3.0000e-005	0.0105	0.0000	2.5577	2.5577	1.4000e-004	0.0000	2.5613
Vendor	6.4000e-004	0.0181	4.7100e-003	4.0000e-005	0.4894	1.2000e-004	0.4895	0.0489	1.2000e-004	0.0490	0.0000	3.5475	3.5475	3.5000e-004	0.0000	3.5561
Worker	1.3400e-003	1.0400e-003	0.0101	2.0000e-005	0.6858	1.0000e-005	0.6858	0.0686	1.0000e-005	0.0686	0.0000	1.6859	1.6859	8.0000e-005	0.0000	1.6879
Total	**2.1900e-003**	**0.0285**	**0.0160**	**9.0000e-005**	**1.2793**	**1.6000e-004**	**1.2795**	**0.1280**	**1.6000e-004**	**0.1281**	**0.0000**	**7.7911**	**7.7911**	**5.7000e-004**	**0.0000**	**7.8054**

3.3 Foundation Removal-1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0423	0.3684	0.2768	4.8000e-004		0.0225	0.0225		0.0219	0.0219	0.0000	41.9478	41.9478	6.3800e-003	0.0000	42.1072
Total	**0.0423**	**0.3684**	**0.2768**	**4.8000e-004**		**0.0225**	**0.0225**		**0.0219**	**0.0219**	**0.0000**	**41.9478**	**41.9478**	**6.3800e-003**	**0.0000**	**42.1072**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	9.3600e-003	1.1400e-003	3.0000e-005	6.6100e-003	3.0000e-005	6.6400e-003	7.1000e-004	3.0000e-005	7.4000e-004	0.0000	2.5577	2.5577	1.4000e-004	0.0000	2.5613
Vendor	6.4000e-004	0.0181	4.7100e-003	4.0000e-005	0.0303	1.2000e-004	0.0304	3.0900e-003	1.2000e-004	3.2100e-003	0.0000	3.5475	3.5475	3.5000e-004	0.0000	3.5561
Worker	1.3400e-003	1.0400e-003	0.0101	2.0000e-005	0.0425	1.0000e-005	0.0425	4.3500e-003	1.0000e-005	4.3600e-003	0.0000	1.6859	1.6859	8.0000e-005	0.0000	1.6879
Total	**2.1900e-003**	**0.0285**	**0.0160**	**9.0000e-005**	**0.0794**	**1.6000e-004**	**0.0795**	**8.1500e-003**	**1.6000e-004**	**8.3100e-003**	**0.0000**	**7.7911**	**7.7911**	**5.7000e-004**	**0.0000**	**7.8054**

3.4 Mobilization/Laydown - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0370	0.0000	0.0370	0.0173	0.0000	0.0173	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3300e-003	0.1013	0.0434	8.0000e-005		5.1600e-003	5.1600e-003		4.7400e-003	4.7400e-003	0.0000	7.4265	7.4265	2.3100e-003	0.0000	7.4843
Total	**9.3300e-003**	**0.1013**	**0.0434**	**8.0000e-005**	**0.0370**	**5.1600e-003**	**0.0422**	**0.0173**	**4.7400e-003**	**0.0220**	**0.0000**	**7.4265**	**7.4265**	**2.3100e-003**	**0.0000**	**7.4843**

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	1.2000e-004	3.4000e-003	8.8000e-004	1.0000e-005	0.0918	2.0000e-005	0.0918	9.1700e-003	2.0000e-005	9.1900e-003	0.0000	0.6652	0.6652	6.0000e-005	0.0000	0.6668
Worker	3.6000e-004	2.8000e-004	2.7100e-003	1.0000e-005	0.1837	0.0000	0.1837	0.0184	0.0000	0.0184	0.0000	0.4516	0.4516	2.0000e-005	0.0000	0.4521
Total	**4.8000e-004**	**3.6800e-003**	**3.5900e-003**	**2.0000e-005**	**0.2754**	**2.0000e-005**	**0.2755**	**0.0275**	**2.0000e-005**	**0.0276**	**0.0000**	**1.1167**	**1.1167**	**8.0000e-005**	**0.0000**	**1.1189**

3.4 Mobilization/Laydown - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0144	0.0000	0.0144	6.7500e-003	0.0000	6.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3300e-003	0.1013	0.0434	8.0000e-005		5.1600e-003	5.1600e-003		4.7400e-003	4.7400e-003	0.0000	7.4265	7.4265	2.3100e-003	0.0000	7.4843
Total	**9.3300e-003**	**0.1013**	**0.0434**	**8.0000e-005**	**0.0144**	**5.1600e-003**	**0.0196**	**6.7500e-003**	**4.7400e-003**	**0.0115**	**0.0000**	**7.4265**	**7.4265**	**2.3100e-003**	**0.0000**	**7.4843**

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	1.2000e-004	3.4000e-003	8.8000e-004	1.0000e-005	5.6700e-003	2.0000e-005	5.7000e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	0.6652	0.6652	6.0000e-005	0.0000	0.6668
Worker	3.6000e-004	2.8000e-004	2.7100e-003	1.0000e-005	0.0114	0.0000	0.0114	1.1700e-003	0.0000	1.1700e-003	0.0000	0.4516	0.4516	2.0000e-005	0.0000	0.4521
Total	**4.8000e-004**	**3.6800e-003**	**3.5900e-003**	**2.0000e-005**	**0.0171**	**2.0000e-005**	**0.0171**	**1.7500e-003**	**2.0000e-005**	**1.7700e-003**	**0.0000**	**1.1167**	**1.1167**	**8.0000e-005**	**0.0000**	**1.1189**

3.5 Site Prep/Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0212	0.0000	0.0212	9.6000e-003	0.0000	9.6000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0841	0.0421	7.0000e-005		4.5000e-003	4.5000e-003		4.1400e-003	4.1400e-003	0.0000	6.8036	6.8036	2.1200e-003	0.0000	6.8565
Total	**7.7900e-003**	**0.0841**	**0.0421**	**7.0000e-005**	**0.0212**	**4.5000e-003**	**0.0257**	**9.6000e-003**	**4.1400e-003**	**0.0137**	**0.0000**	**6.8036**	**6.8036**	**2.1200e-003**	**0.0000**	**6.8565**

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	9.0000e-005	2.4900e-003	6.5000e-004	1.0000e-005	0.0673	2.0000e-005	0.0673	6.7300e-003	2.0000e-005	6.7400e-003	0.0000	0.4878	0.4878	5.0000e-005	0.0000	0.4890
Worker	4.6000e-004	3.6000e-004	3.4800e-003	1.0000e-005	0.2357	0.0000	0.2357	0.0236	0.0000	0.0236	0.0000	0.5795	0.5795	3.0000e-005	0.0000	0.5802
Total	**5.5000e-004**	**2.8500e-003**	**4.1300e-003**	**2.0000e-005**	**0.3030**	**2.0000e-005**	**0.3030**	**0.0303**	**2.0000e-005**	**0.0303**	**0.0000**	**1.0673**	**1.0673**	**8.0000e-005**	**0.0000**	**1.0692**

3.5 Site Prep/Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.2700e-003	0.0000	8.2700e-003	3.7500e-003	0.0000	3.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0841	0.0421	7.0000e-005		4.5000e-003	4.5000e-003		4.1400e-003	4.1400e-003	0.0000	6.8036	6.8036	2.1200e-003	0.0000	6.8565
Total	**7.7900e-003**	**0.0841**	**0.0421**	**7.0000e-005**	**8.2700e-003**	**4.5000e-003**	**0.0128**	**3.7500e-003**	**4.1400e-003**	**7.8900e-003**	**0.0000**	**6.8036**	**6.8036**	**2.1200e-003**	**0.0000**	**6.8565**

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	9.0000e-005	2.4900e-003	6.5000e-004	1.0000e-005	4.1600e-003	2.0000e-005	4.1800e-003	4.3000e-004	2.0000e-005	4.4000e-004	0.0000	0.4878	0.4878	5.0000e-005	0.0000	0.4890
Worker	4.6000e-004	3.6000e-004	3.4800e-003	1.0000e-005	0.0146	0.0000	0.0146	1.5000e-003	0.0000	1.5000e-003	0.0000	0.5795	0.5795	3.0000e-005	0.0000	0.5802
Total	**5.5000e-004**	**2.8500e-003**	**4.1300e-003**	**2.0000e-005**	**0.0188**	**2.0000e-005**	**0.0188**	**1.9300e-003**	**2.0000e-005**	**1.9400e-003**	**0.0000**	**1.0673**	**1.0673**	**8.0000e-005**	**0.0000**	**1.0692**

3.5 Site Prep/Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0408	0.0000	0.0408	0.0204	0.0000	0.0204	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1706	0.0901	1.6000e-004		8.8800e-003	8.8800e-003		8.1700e-003	8.1700e-003	0.0000	14.5901	14.5901	4.6200e-003	0.0000	14.7055
Total	**0.0158**	**0.1706**	**0.0901**	**1.6000e-004**	**0.0408**	**8.8800e-003**	**0.0497**	**0.0204**	**8.1700e-003**	**0.0285**	**0.0000**	**14.5901**	**14.5901**	**4.6200e-003**	**0.0000**	**14.7055**

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	1.7000e-004	5.1100e-003	1.2700e-003	1.0000e-005	0.1468	3.0000e-005	0.1469	0.0147	3.0000e-005	0.0147	0.0000	1.0566	1.0566	1.0000e-004	0.0000	1.0590
Worker	9.2000e-004	7.0000e-004	6.8900e-003	1.0000e-005	0.5143	1.0000e-005	0.5143	0.0514	1.0000e-005	0.0514	0.0000	1.2252	1.2252	6.0000e-005	0.0000	1.2266
Total	**1.0900e-003**	**5.8100e-003**	**8.1600e-003**	**2.0000e-005**	**0.6611**	**4.0000e-005**	**0.6612**	**0.0661**	**4.0000e-005**	**0.0662**	**0.0000**	**2.2818**	**2.2818**	**1.6000e-004**	**0.0000**	**2.2856**

3.5 Site Prep/Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0159	0.0000	0.0159	7.9400e-003	0.0000	7.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1706	0.0901	1.6000e-004		8.8800e-003	8.8800e-003		8.1700e-003	8.1700e-003	0.0000	14.5900	14.5900	4.6200e-003	0.0000	14.7054
Total	**0.0158**	**0.1706**	**0.0901**	**1.6000e-004**	**0.0159**	**8.8800e-003**	**0.0248**	**7.9400e-003**	**8.1700e-003**	**0.0161**	**0.0000**	**14.5900**	**14.5900**	**4.6200e-003**	**0.0000**	**14.7054**

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	1.7000e-004	5.1100e-003	1.2700e-003	1.0000e-005	9.0800e-003	3.0000e-005	9.1100e-003	9.3000e-004	3.0000e-005	9.6000e-004	0.0000	1.0566	1.0566	1.0000e-004	0.0000	1.0590
Worker	9.2000e-004	7.0000e-004	6.8900e-003	1.0000e-005	0.0319	1.0000e-005	0.0319	3.2600e-003	1.0000e-005	3.2700e-003	0.0000	1.2252	1.2252	6.0000e-005	0.0000	1.2266
Total	**1.0900e-003**	**5.8100e-003**	**8.1600e-003**	**2.0000e-005**	**0.0410**	**4.0000e-005**	**0.0410**	**4.1900e-003**	**4.0000e-005**	**4.2300e-003**	**0.0000**	**2.2818**	**2.2818**	**1.6000e-004**	**0.0000**	**2.2856**

3.6 Roads - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0685	0.0000	0.0685	0.0353	0.0000	0.0353	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.2985	0.1577	2.8000e-004		0.0156	0.0156		0.0143	0.0143	0.0000	25.5326	25.5326	8.0800e-003	0.0000	25.7346
Total	**0.0277**	**0.2985**	**0.1577**	**2.8000e-004**	**0.0685**	**0.0156**	**0.0841**	**0.0353**	**0.0143**	**0.0496**	**0.0000**	**25.5326**	**25.5326**	**8.0800e-003**	**0.0000**	**25.7346**

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	1.5000e-004	4.4700e-003	1.1100e-003	1.0000e-005	0.1285	3.0000e-005	0.1285	0.0128	3.0000e-005	0.0129	0.0000	0.9245	0.9245	9.0000e-005	0.0000	0.9266
Worker	2.7600e-003	2.1000e-003	0.0207	4.0000e-005	1.5429	3.0000e-005	1.5430	0.1543	3.0000e-005	0.1543	0.0000	3.6756	3.6756	1.7000e-004	0.0000	3.6798
Total	**2.9100e-003**	**6.5700e-003**	**0.0218**	**5.0000e-005**	**1.6714**	**6.0000e-005**	**1.6715**	**0.1671**	**6.0000e-005**	**0.1672**	**0.0000**	**4.6001**	**4.6001**	**2.6000e-004**	**0.0000**	**4.6065**

3.6 Roads - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0267	0.0000	0.0267	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.2985	0.1577	2.8000e-004		0.0156	0.0156		0.0143	0.0143	0.0000	25.5326	25.5326	8.0800e-003	0.0000	25.7345
Total	**0.0277**	**0.2985**	**0.1577**	**2.8000e-004**	**0.0267**	**0.0156**	**0.0423**	**0.0138**	**0.0143**	**0.0281**	**0.0000**	**25.5326**	**25.5326**	**8.0800e-003**	**0.0000**	**25.7345**

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	1.5000e-004	4.4700e-003	1.1100e-003	1.0000e-005	7.9400e-003	3.0000e-005	7.9700e-003	8.1000e-004	3.0000e-005	8.4000e-004	0.0000	0.9245	0.9245	9.0000e-005	0.0000	0.9266
Worker	2.7600e-003	2.1000e-003	0.0207	4.0000e-005	0.0957	3.0000e-005	0.0957	9.7900e-003	3.0000e-005	9.8200e-003	0.0000	3.6756	3.6756	1.7000e-004	0.0000	3.6798
Total	**2.9100e-003**	**6.5700e-003**	**0.0218**	**5.0000e-005**	**0.1036**	**6.0000e-005**	**0.1037**	**0.0106**	**6.0000e-005**	**0.0107**	**0.0000**	**4.6001**	**4.6001**	**2.6000e-004**	**0.0000**	**4.6065**

3.7 Collection - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0365	0.3924	0.2112	3.9000e-004		0.0205	0.0205		0.0188	0.0188	0.0000	34.8989	34.8989	0.0110	0.0000	35.1749
Total	**0.0365**	**0.3924**	**0.2112**	**3.9000e-004**		**0.0205**	**0.0205**		**0.0188**	**0.0188**	**0.0000**	**34.8989**	**34.8989**	**0.0110**	**0.0000**	**35.1749**

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	2.4000e-004	7.0300e-003	1.7500e-003	2.0000e-005	0.2019	4.0000e-005	0.2019	0.0202	4.0000e-005	0.0202	0.0000	1.4528	1.4528	1.4000e-004	0.0000	1.4562
Worker	1.6300e-003	1.2400e-003	0.0122	2.0000e-005	0.9092	2.0000e-005	0.9093	0.0909	1.0000e-005	0.0909	0.0000	2.1660	2.1660	1.0000e-004	0.0000	2.1685
Total	**1.8700e-003**	**8.2700e-003**	**0.0139**	**4.0000e-005**	**1.1111**	**6.0000e-005**	**1.1112**	**0.1111**	**5.0000e-005**	**0.1112**	**0.0000**	**3.6187**	**3.6187**	**2.4000e-004**	**0.0000**	**3.6246**

3.7 Collection - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0365	0.3924	0.2112	3.9000e-004		0.0205	0.0205		0.0188	0.0188	0.0000	34.8989	34.8989	0.0110	0.0000	35.1749
Total	**0.0365**	**0.3924**	**0.2112**	**3.9000e-004**		**0.0205**	**0.0205**		**0.0188**	**0.0188**	**0.0000**	**34.8989**	**34.8989**	**0.0110**	**0.0000**	**35.1749**

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	2.4000e-004	7.0300e-003	1.7500e-003	2.0000e-005	0.0125	4.0000e-005	0.0125	1.2800e-003	4.0000e-005	1.3200e-003	0.0000	1.4528	1.4528	1.4000e-004	0.0000	1.4562
Worker	1.6300e-003	1.2400e-003	0.0122	2.0000e-005	0.0564	2.0000e-005	0.0564	5.7700e-003	1.0000e-005	5.7900e-003	0.0000	2.1660	2.1660	1.0000e-004	0.0000	2.1685
Total	**1.8700e-003**	**8.2700e-003**	**0.0139**	**4.0000e-005**	**0.0689**	**6.0000e-005**	**0.0689**	**7.0500e-003**	**5.0000e-005**	**7.1100e-003**	**0.0000**	**3.6187**	**3.6187**	**2.4000e-004**	**0.0000**	**3.6246**

3.8 Foundations - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2247	0.1115	2.1000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	18.6083	18.6083	5.8900e-003	0.0000	18.7555
Total	**0.0209**	**0.2247**	**0.1115**	**2.1000e-004**		**0.0112**	**0.0112**		**0.0103**	**0.0103**	**0.0000**	**18.6083**	**18.6083**	**5.8900e-003**	**0.0000**	**18.7555**

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	1.1100e-003	0.0487	5.7600e-003	1.0000e-004	0.9420	9.0000e-005	0.9421	0.0941	9.0000e-005	0.0942	0.0000	9.8477	9.8477	1.1600e-003	0.0000	9.8768
Worker	8.4000e-004	6.4000e-004	6.3200e-003	1.0000e-005	0.4715	1.0000e-005	0.4715	0.0472	1.0000e-005	0.0472	0.0000	1.1231	1.1231	5.0000e-005	0.0000	1.1244
Total	**1.9500e-003**	**0.0493**	**0.0121**	**1.1000e-004**	**1.4134**	**1.0000e-004**	**1.4135**	**0.1413**	**1.0000e-004**	**0.1414**	**0.0000**	**10.9708**	**10.9708**	**1.2100e-003**	**0.0000**	**11.0012**

3.8 Foundations - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2247	0.1115	2.1000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	18.6083	18.6083	5.8900e-003	0.0000	18.7555
Total	**0.0209**	**0.2247**	**0.1115**	**2.1000e-004**		**0.0112**	**0.0112**		**0.0103**	**0.0103**	**0.0000**	**18.6083**	**18.6083**	**5.8900e-003**	**0.0000**	**18.7555**

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	1.1100e-003	0.0487	5.7600e-003	1.0000e-004	0.0582	9.0000e-005	0.0583	5.9100e-003	9.0000e-005	6.0000e-003	0.0000	9.8477	9.8477	1.1600e-003	0.0000	9.8768
Worker	8.4000e-004	6.4000e-004	6.3200e-003	1.0000e-005	0.0292	1.0000e-005	0.0292	2.9900e-003	1.0000e-005	3.0000e-003	0.0000	1.1231	1.1231	5.0000e-005	0.0000	1.1244
Total	**1.9500e-003**	**0.0493**	**0.0121**	**1.1000e-004**	**0.0874**	**1.0000e-004**	**0.0875**	**8.9000e-003**	**1.0000e-004**	**9.0000e-003**	**0.0000**	**10.9708**	**10.9708**	**1.2100e-003**	**0.0000**	**11.0012**

3.9 Install - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0340	0.3780	0.1678	3.5000e-004		0.0184	0.0184		0.0170	0.0170	0.0000	31.5003	31.5003	9.9700e-003	0.0000	31.7495
Total	**0.0340**	**0.3780**	**0.1678**	**3.5000e-004**		**0.0184**	**0.0184**		**0.0170**	**0.0170**	**0.0000**	**31.5003**	**31.5003**	**9.9700e-003**	**0.0000**	**31.7495**

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	9.1000e-004	0.0398	4.7200e-003	8.0000e-005	0.7707	7.0000e-005	0.7708	0.0770	7.0000e-005	0.0771	0.0000	8.0573	8.0573	9.5000e-004	0.0000	8.0810
Worker	1.0400e-003	7.9000e-004	7.7500e-003	2.0000e-005	0.5786	1.0000e-005	0.5786	0.0579	1.0000e-005	0.0579	0.0000	1.3784	1.3784	6.0000e-005	0.0000	1.3799
Total	**1.9500e-003**	**0.0406**	**0.0125**	**1.0000e-004**	**1.3493**	**8.0000e-005**	**1.3494**	**0.1349**	**8.0000e-005**	**0.1350**	**0.0000**	**9.4356**	**9.4356**	**1.0100e-003**	**0.0000**	**9.4610**

3.9 Install - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0340	0.3780	0.1678	3.5000e-004		0.0184	0.0184		0.0170	0.0170	0.0000	31.5003	31.5003	9.9700e-003	0.0000	31.7494
Total	**0.0340**	**0.3780**	**0.1678**	**3.5000e-004**		**0.0184**	**0.0184**		**0.0170**	**0.0170**	**0.0000**	**31.5003**	**31.5003**	**9.9700e-003**	**0.0000**	**31.7494**

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	9.1000e-004	0.0398	4.7200e-003	8.0000e-005	0.0476	7.0000e-005	0.0477	4.8400e-003	7.0000e-005	4.9100e-003	0.0000	8.0573	8.0573	9.5000e-004	0.0000	8.0810
Worker	1.0400e-003	7.9000e-004	7.7500e-003	2.0000e-005	0.0359	1.0000e-005	0.0359	3.6700e-003	1.0000e-005	3.6800e-003	0.0000	1.3784	1.3784	6.0000e-005	0.0000	1.3799
Total	**1.9500e-003**	**0.0406**	**0.0125**	**1.0000e-004**	**0.0835**	**8.0000e-005**	**0.0835**	**8.5100e-003**	**8.0000e-005**	**8.5900e-003**	**0.0000**	**9.4356**	**9.4356**	**1.0100e-003**	**0.0000**	**9.4610**

3.10 Turbine Decommissioning-2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1051	0.9229	0.7325	1.3400e-003		0.0525	0.0525		0.0515	0.0515	0.0000	116.4738	116.4738	0.0147	0.0000	116.8401
Total	**0.1051**	**0.9229**	**0.7325**	**1.3400e-003**		**0.0525**	**0.0525**		**0.0515**	**0.0515**	**0.0000**	**116.4738**	**116.4738**	**0.0147**	**0.0000**	**116.8401**

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	6.1000e-004	0.0269	3.3900e-003	8.0000e-005	0.3203	9.0000e-005	0.3203	0.0321	9.0000e-005	0.0322	0.0000	7.7884	7.7884	4.3000e-004	0.0000	7.7991
Vendor	1.8000e-003	0.0533	0.0133	1.2000e-004	1.5293	3.2000e-004	1.5297	0.1529	3.1000e-004	0.1532	0.0000	11.0057	11.0057	1.0300e-003	0.0000	11.0315
Worker	2.7400e-003	2.0800e-003	0.0205	4.0000e-005	1.5307	3.0000e-005	1.5307	0.1531	2.0000e-005	0.1531	0.0000	3.6464	3.6464	1.7000e-004	0.0000	3.6506
Total	**5.1500e-003**	**0.0822**	**0.0372**	**2.4000e-004**	**3.3803**	**4.4000e-004**	**3.3807**	**0.3381**	**4.2000e-004**	**0.3385**	**0.0000**	**22.4405**	**22.4405**	**1.6300e-003**	**0.0000**	**22.4812**

3.10 Turbine Decommissioning-2 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1051	0.9229	0.7325	1.3400e-003		0.0525	0.0525		0.0515	0.0515	0.0000	116.4737	116.4737	0.0147	0.0000	116.8400
Total	**0.1051**	**0.9229**	**0.7325**	**1.3400e-003**		**0.0525**	**0.0525**		**0.0515**	**0.0515**	**0.0000**	**116.4737**	**116.4737**	**0.0147**	**0.0000**	**116.8400**

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	6.1000e-004	0.0269	3.3900e-003	8.0000e-005	0.0203	9.0000e-005	0.0204	2.1800e-003	9.0000e-005	2.2700e-003	0.0000	7.7884	7.7884	4.3000e-004	0.0000	7.7991
Vendor	1.8000e-003	0.0533	0.0133	1.2000e-004	0.0946	3.2000e-004	0.0949	9.6700e-003	3.1000e-004	9.9800e-003	0.0000	11.0057	11.0057	1.0300e-003	0.0000	11.0315
Worker	2.7400e-003	2.0800e-003	0.0205	4.0000e-005	0.0949	3.0000e-005	0.0949	9.7200e-003	2.0000e-005	9.7400e-003	0.0000	3.6464	3.6464	1.7000e-004	0.0000	3.6506
Total	**5.1500e-003**	**0.0822**	**0.0372**	**2.4000e-004**	**0.2098**	**4.4000e-004**	**0.2102**	**0.0216**	**4.2000e-004**	**0.0220**	**0.0000**	**22.4405**	**22.4405**	**1.6300e-003**	**0.0000**	**22.4812**

3.11 Foundation Removal-2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1133	1.0085	0.8222	1.4500e-003		0.0585	0.0585		0.0569	0.0569	0.0000	126.5110	126.5110	0.0185	0.0000	126.9733
Total	**0.1133**	**1.0085**	**0.8222**	**1.4500e-003**		**0.0585**	**0.0585**		**0.0569**	**0.0569**	**0.0000**	**126.5110**	**126.5110**	**0.0185**	**0.0000**	**126.9733**

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	6.1000e-004	0.0268	3.3700e-003	8.0000e-005	0.3187	9.0000e-005	0.3188	0.0320	9.0000e-005	0.0321	0.0000	7.7511	7.7511	4.3000e-004	0.0000	7.7618
Vendor	1.7500e-003	0.0517	0.0129	1.1000e-004	1.4835	3.1000e-004	1.4838	0.1483	3.0000e-004	0.1486	0.0000	10.6756	10.6756	1.0000e-003	0.0000	10.7005
Worker	3.7200e-003	2.8300e-003	0.0279	5.0000e-005	2.0787	4.0000e-005	2.0787	0.2079	3.0000e-005	0.2079	0.0000	4.9518	4.9518	2.3000e-004	0.0000	4.9576
Total	**6.0800e-003**	**0.0813**	**0.0441**	**2.4000e-004**	**3.8809**	**4.4000e-004**	**3.8813**	**0.3882**	**4.2000e-004**	**0.3886**	**0.0000**	**23.3785**	**23.3785**	**1.6600e-003**	**0.0000**	**23.4198**

3.11 Foundation Removal-2 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1133	1.0085	0.8222	1.4500e-003		0.0585	0.0585		0.0569	0.0569	0.0000	126.5108	126.5108	0.0185	0.0000	126.9732
Total	**0.1133**	**1.0085**	**0.8222**	**1.4500e-003**		**0.0585**	**0.0585**		**0.0569**	**0.0569**	**0.0000**	**126.5108**	**126.5108**	**0.0185**	**0.0000**	**126.9732**

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	6.1000e-004	0.0268	3.3700e-003	8.0000e-005	0.0202	9.0000e-005	0.0203	2.1700e-003	9.0000e-005	2.2600e-003	0.0000	7.7511	7.7511	4.3000e-004	0.0000	7.7618
Vendor	1.7500e-003	0.0517	0.0129	1.1000e-004	0.0917	3.1000e-004	0.0920	9.3800e-003	3.0000e-004	9.6800e-003	0.0000	10.6756	10.6756	1.0000e-003	0.0000	10.7005
Worker	3.7200e-003	2.8300e-003	0.0279	5.0000e-005	0.1289	4.0000e-005	0.1289	0.0132	3.0000e-005	0.0132	0.0000	4.9518	4.9518	2.3000e-004	0.0000	4.9576
Total	**6.0800e-003**	**0.0813**	**0.0441**	**2.4000e-004**	**0.2408**	**4.4000e-004**	**0.2412**	**0.0247**	**4.2000e-004**	**0.0252**	**0.0000**	**23.3785**	**23.3785**	**1.6600e-003**	**0.0000**	**23.4198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.482259	0.038261	0.180775	0.132303	0.018096	0.005727	0.021216	0.108810	0.002699	0.002023	0.006057	0.000794	0.000981

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	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	8.8000e-004	9.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Unmitigated	8.8000e-004	9.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Total	**8.8000e-004**	**9.0000e-005**	**9.2800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0191**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.8000e-004	9.0000e-005	9.2800e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0191
Total	**8.8000e-004**	**9.0000e-005**	**9.2800e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0191**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.4781	4.3000e-004	9.0000e-005	10.5155
Unmitigated	10.4781	4.3000e-004	9.0000e-005	10.5155

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 2.96	10.4781	4.3000e-004	9.0000e-005	10.5155
Total		**10.4781**	**4.3000e-004**	**9.0000e-005**	**10.5155**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 2.96	10.4781	4.3000e-004	9.0000e-005	10.5155
Total		**10.4781**	**4.3000e-004**	**9.0000e-005**	**10.5155**

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			
User Defined Industrial	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			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs Wind Energy Repowering Project

Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1,000.00	User Defined Unit	5.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2019
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 - Acreage based on disturbed area for project.

Construction Phase - Based on applicant provided construction schedule.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction assumptions.

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Summer

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided data.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction data.

Trips and VMT - Based on applicant provided construction assumptions.

On-road Fugitive Dust - Based on distance from Indian Canyon Dr. Road silt loading based on CARB Entrained Paved Road Dust Paved Roat Travel, July 1997.

Demolition -

Grading - CalEEMod defaults.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - No landscaping

Water And Wastewater - Based on 16,000 gallons per day for dust suppression.

Construction Off-road Equipment Mitigation - Water for dust suppression.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	33.00
tblConstructionPhase	NumDays	230.00	22.00
tblConstructionPhase	NumDays	230.00	21.00
tblConstructionPhase	NumDays	20.00	32.00

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Summer

tblConstructionPhase	NumDays	20.00	97.00
tblConstructionPhase	NumDays	20.00	32.00
tblConstructionPhase	NumDays	20.00	100.00
tblConstructionPhase	NumDays	8.00	35.00
tblConstructionPhase	NumDays	8.00	42.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	AcresOfGrading	10.50	10.00
tblGrading	AcresOfGrading	2.50	13.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
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tblOnRoadDust	VendorPercentPave	50.00	59.30
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tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30

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tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
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tblOnRoadDust	VendorPercentPave	50.00	59.30
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tblOnRoadDust	WorkerPercentPave	50.00	80.00
tblOnRoadDust	WorkerPercentPave	50.00	80.00
tblTripsAndVMT	HaulingTripNumber	0.00	67.00
tblTripsAndVMT	HaulingTripNumber	0.00	208.00
tblTripsAndVMT	HaulingTripNumber	0.00	68.00
tblTripsAndVMT	HaulingTripNumber	0.00	209.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	28.00

tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	14.00
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tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	0.00	14.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblWater	OutdoorWaterUseRate	0.00	2,960,000.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.2739	67.8876	43.8225	0.0860	221.8805	3.6846	225.5651	24.8996	3.5388	28.4384	0.0000	8,437.9977	8,437.9977	1.3859	0.0000	8,472.6447
2019	5.6502	59.9397	33.4543	0.0751	207.5361	2.8223	210.3584	20.7414	2.6607	23.4021	0.0000	7,415.9087	7,415.9087	1.5068	0.0000	7,453.5788
Maximum	**7.2739**	**67.8876**	**43.8225**	**0.0860**	**221.8805**	**3.6846**	**225.5651**	**24.8996**	**3.5388**	**28.4384**	**0.0000**	**8,437.9977**	**8,437.9977**	**1.5068**	**0.0000**	**8,472.6447**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.2739	67.8876	43.8225	0.0860	16.1755	3.6846	19.8601	2.7115	3.5388	6.2504	0.0000	8,437.9977	8,437.9977	1.3859	0.0000	8,472.6447
2019	5.6502	59.9397	33.4543	0.0751	12.8401	2.8223	15.6624	2.2150	2.6607	3.9722	0.0000	7,415.9087	7,415.9087	1.5068	0.0000	7,453.5788
Maximum	**7.2739**	**67.8876**	**43.8225**	**0.0860**	**16.1755**	**3.6846**	**19.8601**	**2.7115**	**3.5388**	**6.2504**	**0.0000**	**8,437.9977**	**8,437.9977**	**1.5068**	**0.0000**	**8,472.6447**

	ROG	NOx	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**	**93.24**	**0.00**	**91.85**	**89.21**	**0.00**	**80.28**	**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	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**	**0.0000**	**0.2337**

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	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**	**0.0000**	**0.2337**

	ROG	NOx	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	Turbine Decommissioning-1	Demolition	11/1/2018	12/14/2018	5	32	
2	Foundation Removal-1	Demolition	11/1/2018	12/14/2018	5	32	
3	Mobilization/Laydown	Site Preparation	12/1/2018	12/14/2018	5	10	
4	Site Prep/Grading	Grading	12/15/2018	2/1/2019	5	35	
5	Roads	Grading	2/1/2019	4/1/2019	5	42	
6	Collection	Building Construction	4/1/2019	5/15/2019	5	33	
7	Foundations	Building Construction	5/15/2019	6/13/2019	5	22	
8	Install	Building Construction	6/15/2019	7/15/2019	5	21	
9	Turbine Decommissioning-2	Demolition	7/15/2019	11/29/2019	5	100	
10	Foundation Removal-2	Demolition	8/1/2019	12/13/2019	5	97	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Turbine Decommissioning-1	Air Compressors	2	8.00	78	0.48
Turbine Decommissioning-1	Concrete/Industrial Saws	0	8.00	81	0.73
Turbine Decommissioning-1	Cranes	1	8.00	231	0.29
Turbine Decommissioning-1	Excavators	0	8.00	158	0.38
Turbine Decommissioning-1	Generator Sets	2	8.00	84	0.74
Turbine Decommissioning-1	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-1	Air Compressors	2	8.00	78	0.48
Foundation Removal-1	Concrete/Industrial Saws	0	8.00	81	0.73
Foundation Removal-1	Cranes	1	8.00	231	0.29
Foundation Removal-1	Excavators	0	8.00	158	0.38
Foundation Removal-1	Generator Sets	2	8.00	84	0.74
Foundation Removal-1	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-1	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Foundation Removal-2	Air Compressors	2	8.00	78	0.48
Foundation Removal-2	Concrete/Industrial Saws	0	8.00	81	0.73
Foundation Removal-2	Cranes	1	8.00	231	0.29
Foundation Removal-2	Excavators	0	8.00	158	0.38
Foundation Removal-2	Generator Sets	2	8.00	84	0.74
Foundation Removal-2	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-2	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Turbine Decommissioning-2	Air Compressors	2	8.00	78	0.48
Turbine Decommissioning-2	Concrete/Industrial Saws	0	8.00	81	0.73
Turbine Decommissioning-2	Cranes	1	8.00	231	0.29
Turbine Decommissioning-2	Excavators	0	8.00	158	0.38
Turbine Decommissioning-2	Generator Sets	2	8.00	84	0.74
Turbine Decommissioning-2	Rubber Tired Dozers	0	8.00	247	0.40

Mobilization/Laydown	Forklifts	1	8.00	89	0.20
Mobilization/Laydown	Graders	1	4.00	187	0.41
Mobilization/Laydown	Rollers	1	4.00	80	0.38
Mobilization/Laydown	Rubber Tired Dozers	2	4.00	247	0.40
Mobilization/Laydown	Rubber Tired Loaders	0	8.00	203	0.36
Mobilization/Laydown	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Roads	Excavators	0	8.00	158	0.38
Roads	Forklifts	1	8.00	89	0.20
Roads	Graders	1	4.00	187	0.41
Roads	Rollers	1	4.00	80	0.38
Roads	Rubber Tired Dozers	1	4.00	247	0.40
Roads	Rubber Tired Loaders	0	8.00	203	0.36
Roads	Scrapers	0	8.00	367	0.48
Roads	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Prep/Grading	Excavators	0	4.00	158	0.38
Site Prep/Grading	Forklifts	1	8.00	89	0.20
Site Prep/Grading	Graders	1	4.00	187	0.41
Site Prep/Grading	Rollers	1	4.00	80	0.38
Site Prep/Grading	Rubber Tired Dozers	1	4.00	247	0.40
Site Prep/Grading	Rubber Tired Loaders	0	8.00	203	0.36
Site Prep/Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Foundations	Cranes	0	8.00	231	0.29
Foundations	Excavators	1	4.00	158	0.38
Foundations	Forklifts	1	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Graders	1	4.00	187	0.41
Foundations	Rollers	1	4.00	80	0.38

Foundations	Rubber Tired Dozers	2	4.00	247	0.40
Foundations	Rubber Tired Loaders	0	8.00	203	0.36
Foundations	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Collection	Cranes	1	8.00	231	0.29
Collection	Excavators	1	4.00	158	0.38
Collection	Forklifts	2	8.00	89	0.20
Collection	Generator Sets	0	8.00	84	0.74
Collection	Graders	1	4.00	187	0.41
Collection	Rollers	1	4.00	80	0.38
Collection	Rubber Tired Dozers	1	4.00	247	0.40
Collection	Rubber Tired Loaders	0	8.00	203	0.36
Collection	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Collection	Trenchers	1	4.00	78	0.50
Collection	Welders	0	8.00	46	0.45
Install	Cranes	4	8.00	231	0.29
Install	Forklifts	2	8.00	89	0.20
Install	Generator Sets	0	8.00	84	0.74
Install	Rollers	1	4.00	80	0.38
Install	Rubber Tired Dozers	1	4.00	247	0.40
Install	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Install	Trenchers	1	4.00	78	0.50
Install	Welders	0	8.00	46	0.45

Trips and VMT

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Turbine Decommissioning-1	5	10.00	10.00	67.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Removal-1	7	14.00	10.00	68.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Removal-2	7	14.00	10.00	208.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Turbine Decommissioning-2	5	10.00	10.00	209.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Mobilization/Laydown	6	12.00	6.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Roads	6	24.00	2.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep/Grading	6	14.00	4.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	7	14.00	28.00	0.00	11.00	5.40	20.00	LD_Mix	HHDT	HHDT
Collection	9	18.00	4.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Install	9	18.00	24.00	0.00	11.00	5.40	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Turbine Decommissioning-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3779	20.3962	14.9608	0.0269		1.2207	1.2207		1.1971	1.1971		2,577.1965	2,577.1965	0.3420		2,585.7455
Total	**2.3779**	**20.3962**	**14.9608**	**0.0269**		**1.2207**	**1.2207**		**1.1971**	**1.1971**		**2,577.1965**	**2,577.1965**	**0.3420**		**2,585.7455**

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	0.0126	0.5603	0.0646	1.6700e-003	6.7936	2.0800e-003	6.7957	0.6811	1.9900e-003	0.6831		175.7846	175.7846	9.3500e-003		176.0182
Vendor	0.0396	1.1197	0.2773	2.3900e-003	32.3640	7.5800e-003	32.3715	3.2345	7.2500e-003	3.2417		249.6641	249.6641	0.0227		250.2311
Worker	0.0716	0.0460	0.5645	9.3000e-004	32.4013	5.5000e-004	32.4019	3.2385	5.1000e-004	3.2390		91.7332	91.7332	4.7400e-003		91.8518
Total	**0.1237**	**1.7260**	**0.9063**	**4.9900e-003**	**71.5589**	**0.0102**	**71.5691**	**7.1541**	**9.7500e-003**	**7.1638**		**517.1819**	**517.1819**	**0.0368**		**518.1011**

3.2 Turbine Decommissioning-1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3779	20.3962	14.9608	0.0269		1.2207	1.2207		1.1971	1.1971	0.0000	2,577.1965	2,577.1965	0.3420		2,585.7455
Total	**2.3779**	**20.3962**	**14.9608**	**0.0269**		**1.2207**	**1.2207**		**1.1971**	**1.1971**	**0.0000**	**2,577.1965**	**2,577.1965**	**0.3420**		**2,585.7455**

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	0.0126	0.5603	0.0646	1.6700e-003	0.4298	2.0800e-003	0.4318	0.0460	1.9900e-003	0.0480		175.7846	175.7846	9.3500e-003		176.0182
Vendor	0.0396	1.1197	0.2773	2.3900e-003	1.9997	7.5800e-003	2.0073	0.2043	7.2500e-003	0.2115		249.6641	249.6641	0.0227		250.2311
Worker	0.0716	0.0460	0.5645	9.3000e-004	2.0067	5.5000e-004	2.0072	0.2052	5.1000e-004	0.2057		91.7332	91.7332	4.7400e-003		91.8518
Total	**0.1237**	**1.7260**	**0.9063**	**4.9900e-003**	**4.4361**	**0.0102**	**4.4463**	**0.4555**	**9.7500e-003**	**0.4652**		**517.1819**	**517.1819**	**0.0368**		**518.1011**

3.3 Foundation Removal-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6440	23.0259	17.2975	0.0300		1.4070	1.4070		1.3685	1.3685		2,889.9725	2,889.9725	0.4393		2,900.9558
Total	**2.6440**	**23.0259**	**17.2975**	**0.0300**		**1.4070**	**1.4070**		**1.3685**	**1.3685**		**2,889.9725**	**2,889.9725**	**0.4393**		**2,900.9558**

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	0.0128	0.5687	0.0655	1.7000e-003	6.8950	2.1100e-003	6.8971	0.6913	2.0200e-003	0.6933		178.4082	178.4082	9.4800e-003		178.6454
Vendor	0.0396	1.1197	0.2773	2.3900e-003	32.3640	7.5800e-003	32.3715	3.2345	7.2500e-003	3.2417		249.6641	249.6641	0.0227		250.2311
Worker	0.1002	0.0643	0.7902	1.3000e-003	45.3619	7.7000e-004	45.3626	4.5338	7.1000e-004	4.5345		128.4265	128.4265	6.6400e-003		128.5925
Total	**0.1526**	**1.7527**	**1.1331**	**5.3900e-003**	**84.6209**	**0.0105**	**84.6313**	**8.4596**	**9.9800e-003**	**8.4696**		**556.4988**	**556.4988**	**0.0388**		**557.4690**

3.3 Foundation Removal-1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6440	23.0259	17.2975	0.0300		1.4070	1.4070		1.3685	1.3685	0.0000	2,889.9725	2,889.9725	0.4393		2,900.9558
Total	**2.6440**	**23.0259**	**17.2975**	**0.0300**		**1.4070**	**1.4070**		**1.3685**	**1.3685**	**0.0000**	**2,889.9725**	**2,889.9725**	**0.4393**		**2,900.9558**

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	0.0128	0.5687	0.0655	1.7000e-003	0.4362	2.1100e-003	0.4383	0.0467	2.0200e-003	0.0487		178.4082	178.4082	9.4800e-003		178.6454
Vendor	0.0396	1.1197	0.2773	2.3900e-003	1.9997	7.5800e-003	2.0073	0.2043	7.2500e-003	0.2115		249.6641	249.6641	0.0227		250.2311
Worker	0.1002	0.0643	0.7902	1.3000e-003	2.8093	7.7000e-004	2.8101	0.2873	7.1000e-004	0.2880		128.4265	128.4265	6.6400e-003		128.5925
Total	**0.1526**	**1.7527**	**1.1331**	**5.3900e-003**	**5.2452**	**0.0105**	**5.2557**	**0.5382**	**9.9800e-003**	**0.5482**		**556.4988**	**556.4988**	**0.0388**		**557.4690**

3.4 Mobilization/Laydown - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4007	0.0000	7.4007	3.4591	0.0000	3.4591			0.0000			0.0000
Off-Road	1.8661	20.2598	8.6811	0.0163		1.0310	1.0310		0.9485	0.9485		1,637.2698	1,637.2698	0.5097		1,650.0124
Total	**1.8661**	**20.2598**	**8.6811**	**0.0163**	**7.4007**	**1.0310**	**8.4318**	**3.4591**	**0.9485**	**4.4076**		**1,637.2698**	**1,637.2698**	**0.5097**		**1,650.0124**

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	0.0238	0.6718	0.1664	1.4300e-003	19.4184	4.5500e-003	19.4229	1.9407	4.3500e-003	1.9450		149.7985	149.7985	0.0136		150.1387
Worker	0.0859	0.0552	0.6774	1.1100e-003	38.8816	6.6000e-004	38.8823	3.8861	6.1000e-004	3.8868		110.0798	110.0798	5.6900e-003		110.2222
Total	**0.1097**	**0.7270**	**0.8437**	**2.5400e-003**	**58.3000**	**5.2100e-003**	**58.3052**	**5.8268**	**4.9600e-003**	**5.8318**		**259.8783**	**259.8783**	**0.0193**		**260.3608**

3.4 Mobilization/Laydown - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8863	0.0000	2.8863	1.3490	0.0000	1.3490			0.0000			0.0000
Off-Road	1.8661	20.2598	8.6811	0.0163		1.0310	1.0310		0.9485	0.9485	0.0000	1,637.2698	1,637.2698	0.5097		1,650.0124
Total	**1.8661**	**20.2598**	**8.6811**	**0.0163**	**2.8863**	**1.0310**	**3.9173**	**1.3490**	**0.9485**	**2.2976**	**0.0000**	**1,637.2698**	**1,637.2698**	**0.5097**		**1,650.0124**

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	0.0238	0.6718	0.1664	1.4300e-003	1.1998	4.5500e-003	1.2044	0.1226	4.3500e-003	0.1269		149.7985	149.7985	0.0136		150.1387
Worker	0.0859	0.0552	0.6774	1.1100e-003	2.4080	6.6000e-004	2.4087	0.2462	6.1000e-004	0.2468		110.0798	110.0798	5.6900e-003		110.2222
Total	**0.1097**	**0.7270**	**0.8437**	**2.5400e-003**	**3.6078**	**5.2100e-003**	**3.6130**	**0.3688**	**4.9600e-003**	**0.3737**		**259.8783**	**259.8783**	**0.0193**		**260.3608**

3.5 Site Prep/Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2762	0.0000	3.2762	1.6837	0.0000	1.6837			0.0000			0.0000
Off-Road	1.4161	15.2947	7.6613	0.0135		0.8189	0.8189		0.7534	0.7534		1,363.5711	1,363.5711	0.4245		1,374.1835
Total	**1.4161**	**15.2947**	**7.6613**	**0.0135**	**3.2762**	**0.8189**	**4.0951**	**1.6837**	**0.7534**	**2.4371**		**1,363.5711**	**1,363.5711**	**0.4245**		**1,374.1835**

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	0.0158	0.4479	0.1109	9.5000e-004	12.9456	3.0300e-003	12.9486	1.2938	2.9000e-003	1.2967		99.8656	99.8656	9.0700e-003		100.0924
Worker	0.1002	0.0643	0.7902	1.3000e-003	45.3619	7.7000e-004	45.3626	4.5338	7.1000e-004	4.5345		128.4265	128.4265	6.6400e-003		128.5925
Total	**0.1161**	**0.5122**	**0.9012**	**2.2500e-003**	**58.3074**	**3.8000e-003**	**58.3112**	**5.8276**	**3.6100e-003**	**5.8312**		**228.2921**	**228.2921**	**0.0157**		**228.6850**

3.5 Site Prep/Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2777	0.0000	1.2777	0.6567	0.0000	0.6567			0.0000			0.0000
Off-Road	1.4161	15.2947	7.6613	0.0135		0.8189	0.8189		0.7534	0.7534	0.0000	1,363.5711	1,363.5711	0.4245		1,374.1835
Total	**1.4161**	**15.2947**	**7.6613**	**0.0135**	**1.2777**	**0.8189**	**2.0966**	**0.6567**	**0.7534**	**1.4100**	**0.0000**	**1,363.5711**	**1,363.5711**	**0.4245**		**1,374.1835**

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	0.0158	0.4479	0.1109	9.5000e-004	0.7999	3.0300e-003	0.8029	0.0817	2.9000e-003	0.0846		99.8656	99.8656	9.0700e-003		100.0924
Worker	0.1002	0.0643	0.7902	1.3000e-003	2.8093	7.7000e-004	2.8101	0.2873	7.1000e-004	0.2880		128.4265	128.4265	6.6400e-003		128.5925
Total	**0.1161**	**0.5122**	**0.9012**	**2.2500e-003**	**3.6092**	**3.8000e-003**	**3.6130**	**0.3690**	**3.6100e-003**	**0.3726**		**228.2921**	**228.2921**	**0.0157**		**228.6850**

3.5 Site Prep/Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2762	0.0000	3.2762	1.6837	0.0000	1.6837			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811		1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**3.2762**	**0.7403**	**4.0165**	**1.6837**	**0.6811**	**2.3648**		**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	0.0143	0.4216	0.0993	9.5000e-004	12.9456	2.5700e-003	12.9482	1.2938	2.4600e-003	1.2963		99.1443	99.1443	8.6500e-003		99.3606
Worker	0.0917	0.0577	0.7178	1.2500e-003	45.3619	7.6000e-004	45.3626	4.5338	7.0000e-004	4.5345		124.4585	124.4585	6.0400e-003		124.6095
Total	**0.1060**	**0.4793**	**0.8170**	**2.2000e-003**	**58.3074**	**3.3300e-003**	**58.3108**	**5.8276**	**3.1600e-003**	**5.8308**		**223.6028**	**223.6028**	**0.0147**		**223.9701**

3.5 Site Prep/Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2777	0.0000	1.2777	0.6567	0.0000	0.6567			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811	0.0000	1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**1.2777**	**0.7403**	**2.0180**	**0.6567**	**0.6811**	**1.3377**	**0.0000**	**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	0.0143	0.4216	0.0993	9.5000e-004	0.7999	2.5700e-003	0.8025	0.0817	2.4600e-003	0.0842		99.1443	99.1443	8.6500e-003		99.3606
Worker	0.0917	0.0577	0.7178	1.2500e-003	2.8093	7.6000e-004	2.8101	0.2873	7.0000e-004	0.2880		124.4585	124.4585	6.0400e-003		124.6095
Total	**0.1060**	**0.4793**	**0.8170**	**2.2000e-003**	**3.6092**	**3.3300e-003**	**3.6126**	**0.3690**	**3.1600e-003**	**0.3721**		**223.6028**	**223.6028**	**0.0147**		**223.9701**

3.6 Roads - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2635	0.0000	3.2635	1.6824	0.0000	1.6824			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811		1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**3.2635**	**0.7403**	**4.0038**	**1.6824**	**0.6811**	**2.3635**		**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	7.1500e-003	0.2108	0.0496	4.7000e-004	6.4728	1.2900e-003	6.4741	0.6469	1.2300e-003	0.6481		49.5722	49.5722	4.3300e-003		49.6803
Worker	0.1572	0.0989	1.2304	2.1500e-003	77.7632	1.3000e-003	77.7645	7.7723	1.2000e-003	7.7735		213.3575	213.3575	0.0104		213.6163
Total	**0.1644**	**0.3097**	**1.2801**	**2.6200e-003**	**84.2360**	**2.5900e-003**	**84.2386**	**8.4192**	**2.4300e-003**	**8.4216**		**262.9296**	**262.9296**	**0.0147**		**263.2966**

3.6 Roads - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2728	0.0000	1.2728	0.6561	0.0000	0.6561			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811	0.0000	1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**1.2728**	**0.7403**	**2.0131**	**0.6561**	**0.6811**	**1.3372**	**0.0000**	**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	7.1500e-003	0.2108	0.0496	4.7000e-004	0.3999	1.2900e-003	0.4012	0.0409	1.2300e-003	0.0421		49.5722	49.5722	4.3300e-003		49.6803
Worker	0.1572	0.0989	1.2304	2.1500e-003	4.8160	1.3000e-003	4.8173	0.4924	1.2000e-003	0.4936		213.3575	213.3575	0.0104		213.6163
Total	**0.1644**	**0.3097**	**1.2801**	**2.6200e-003**	**5.2160**	**2.5900e-003**	**5.2185**	**0.5333**	**2.4300e-003**	**0.5357**		**262.9296**	**262.9296**	**0.0147**		**263.2966**

3.7 Collection - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2118	23.7793	12.7986	0.0235		1.2403	1.2403		1.1411	1.1411		2,331.4816	2,331.4816	0.7377		2,349.9230
Total	**2.2118**	**23.7793**	**12.7986**	**0.0235**		**1.2403**	**1.2403**		**1.1411**	**1.1411**		**2,331.4816**	**2,331.4816**	**0.7377**		**2,349.9230**

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	0.0143	0.4216	0.0993	9.5000e-004	12.9456	2.5700e-003	12.9482	1.2938	2.4600e-003	1.2963		99.1443	99.1443	8.6500e-003		99.3606
Worker	0.1179	0.0742	0.9228	1.6100e-003	58.3224	9.8000e-004	58.3234	5.8292	9.0000e-004	5.8301		160.0181	160.0181	7.7700e-003		160.2123
Total	**0.1322**	**0.4958**	**1.0221**	**2.5600e-003**	**71.2680**	**3.5500e-003**	**71.2715**	**7.1230**	**3.3600e-003**	**7.1264**		**259.1624**	**259.1624**	**0.0164**		**259.5729**

3.7 Collection - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2118	23.7793	12.7986	0.0235		1.2403	1.2403		1.1411	1.1411	0.0000	2,331.4816	2,331.4816	0.7377		2,349.9230
Total	**2.2118**	**23.7793**	**12.7986**	**0.0235**		**1.2403**	**1.2403**		**1.1411**	**1.1411**	**0.0000**	**2,331.4816**	**2,331.4816**	**0.7377**		**2,349.9230**

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	0.0143	0.4216	0.0993	9.5000e-004	0.7999	2.5700e-003	0.8025	0.0817	2.4600e-003	0.0842		99.1443	99.1443	8.6500e-003		99.3606
Worker	0.1179	0.0742	0.9228	1.6100e-003	3.6120	9.8000e-004	3.6130	0.3693	9.0000e-004	0.3702		160.0181	160.0181	7.7700e-003		160.2123
Total	**0.1322**	**0.4958**	**1.0221**	**2.5600e-003**	**4.4119**	**3.5500e-003**	**4.4154**	**0.4510**	**3.3600e-003**	**0.4544**		**259.1624**	**259.1624**	**0.0164**		**259.5729**

3.8 Foundations - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8979	20.4226	10.1339	0.0188		1.0213	1.0213		0.9396	0.9396		1,864.7381	1,864.7381	0.5900		1,879.4876
Total	**1.8979**	**20.4226**	**10.1339**	**0.0188**		**1.0213**	**1.0213**		**0.9396**	**0.9396**		**1,864.7381**	**1,864.7381**	**0.5900**		**1,879.4876**

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	0.0967	4.4207	0.4489	9.6700e-003	90.6115	8.0500e-003	90.6195	9.0526	7.7000e-003	9.0603		1,015.5913	1,015.5913	0.1106		1,018.3552
Worker	0.0917	0.0577	0.7178	1.2500e-003	45.3619	7.6000e-004	45.3626	4.5338	7.0000e-004	4.5345		124.4585	124.4585	6.0400e-003		124.6095
Total	**0.1884**	**4.4784**	**1.1667**	**0.0109**	**135.9733**	**8.8100e-003**	**135.9821**	**13.5864**	**8.4000e-003**	**13.5948**		**1,140.0499**	**1,140.0499**	**0.1166**		**1,142.9647**

3.8 Foundations - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8979	20.4226	10.1339	0.0188		1.0213	1.0213		0.9396	0.9396	0.0000	1,864.7381	1,864.7381	0.5900		1,879.4876
Total	**1.8979**	**20.4226**	**10.1339**	**0.0188**		**1.0213**	**1.0213**		**0.9396**	**0.9396**	**0.0000**	**1,864.7381**	**1,864.7381**	**0.5900**		**1,879.4876**

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	0.0967	4.4207	0.4489	9.6700e-003	5.5915	8.0500e-003	5.5996	0.5679	7.7000e-003	0.5756		1,015.5913	1,015.5913	0.1106		1,018.3552
Worker	0.0917	0.0577	0.7178	1.2500e-003	2.8093	7.6000e-004	2.8101	0.2873	7.0000e-004	0.2880		124.4585	124.4585	6.0400e-003		124.6095
Total	**0.1884**	**4.4784**	**1.1667**	**0.0109**	**8.4009**	**8.8100e-003**	**8.4097**	**0.8552**	**8.4000e-003**	**0.8636**		**1,140.0499**	**1,140.0499**	**0.1166**		**1,142.9647**

3.9 Install - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2337	36.0009	15.9758	0.0334		1.7559	1.7559		1.6155	1.6155		3,306.9660	3,306.9660	1.0463		3,333.1233
Total	**3.2337**	**36.0009**	**15.9758**	**0.0334**		**1.7559**	**1.7559**		**1.6155**	**1.6155**		**3,306.9660**	**3,306.9660**	**1.0463**		**3,333.1233**

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	0.0829	3.7892	0.3848	8.2900e-003	77.6670	6.9000e-003	77.6739	7.7593	6.6000e-003	7.7659		870.5069	870.5069	0.0948		872.8759
Worker	0.1179	0.0742	0.9228	1.6100e-003	58.3224	9.8000e-004	58.3234	5.8292	9.0000e-004	5.8301		160.0181	160.0181	7.7700e-003		160.2123
Total	**0.2008**	**3.8633**	**1.3076**	**9.9000e-003**	**135.9893**	**7.8800e-003**	**135.9972**	**13.5885**	**7.5000e-003**	**13.5961**		**1,030.5249**	**1,030.5249**	**0.1025**		**1,033.0881**

3.9 Install - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2337	36.0009	15.9758	0.0334		1.7559	1.7559		1.6155	1.6155	0.0000	3,306.9660	3,306.9660	1.0463		3,333.1233
Total	**3.2337**	**36.0009**	**15.9758**	**0.0334**		**1.7559**	**1.7559**		**1.6155**	**1.6155**	**0.0000**	**3,306.9660**	**3,306.9660**	**1.0463**		**3,333.1233**

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	0.0829	3.7892	0.3848	8.2900e-003	4.7927	6.9000e-003	4.7996	0.4868	6.6000e-003	0.4934		870.5069	870.5069	0.0948		872.8759
Worker	0.1179	0.0742	0.9228	1.6100e-003	3.6120	9.8000e-004	3.6130	0.3693	9.0000e-004	0.3702		160.0181	160.0181	7.7700e-003		160.2123
Total	**0.2008**	**3.8633**	**1.3076**	**9.9000e-003**	**8.4048**	**7.8800e-003**	**8.4126**	**0.8561**	**7.5000e-003**	**0.8636**		**1,030.5249**	**1,030.5249**	**0.1025**		**1,033.0881**

3.10 Turbine Decommissioning-2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1026	18.4572	14.6494	0.0269		1.0497	1.0497		1.0293	1.0293		2,567.8079	2,567.8079	0.3231		2,575.8841
Total	**2.1026**	**18.4572**	**14.6494**	**0.0269**		**1.0497**	**1.0497**		**1.0293**	**1.0293**		**2,567.8079**	**2,567.8079**	**0.3231**		**2,575.8841**

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	0.0119	0.5230	0.0622	1.6500e-003	6.7815	1.8600e-003	6.7833	0.6799	1.7800e-003	0.6817		173.8501	173.8501	9.0000e-003		174.0750
Vendor	0.0357	1.0541	0.2481	2.3700e-003	32.3640	6.4300e-003	32.3704	3.2345	6.1500e-003	3.2406		247.8608	247.8608	0.0216		248.4015
Worker	0.0655	0.0412	0.5127	9.0000e-004	32.4013	5.4000e-004	32.4019	3.2385	5.0000e-004	3.2390		88.8989	88.8989	4.3100e-003		89.0068
Total	**0.1132**	**1.6183**	**0.8231**	**4.9200e-003**	**71.5468**	**8.8300e-003**	**71.5556**	**7.1528**	**8.4300e-003**	**7.1613**		**510.6099**	**510.6099**	**0.0349**		**511.4833**

3.10 Turbine Decommissioning-2 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1026	18.4572	14.6494	0.0269		1.0497	1.0497		1.0293	1.0293	0.0000	2,567.8079	2,567.8079	0.3231		2,575.8841
Total	**2.1026**	**18.4572**	**14.6494**	**0.0269**		**1.0497**	**1.0497**		**1.0293**	**1.0293**	**0.0000**	**2,567.8079**	**2,567.8079**	**0.3231**		**2,575.8841**

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	0.0119	0.5230	0.0622	1.6500e-003	0.4290	1.8600e-003	0.4308	0.0460	1.7800e-003	0.0477		173.8501	173.8501	9.0000e-003		174.0750
Vendor	0.0357	1.0541	0.2481	2.3700e-003	1.9997	6.4300e-003	2.0061	0.2043	6.1500e-003	0.2104		247.8608	247.8608	0.0216		248.4015
Worker	0.0655	0.0412	0.5127	9.0000e-004	2.0067	5.4000e-004	2.0072	0.2052	5.0000e-004	0.2057		88.8989	88.8989	4.3100e-003		89.0068
Total	**0.1132**	**1.6183**	**0.8231**	**4.9200e-003**	**4.4354**	**8.8300e-003**	**4.4442**	**0.4554**	**8.4300e-003**	**0.4638**		**510.6099**	**510.6099**	**0.0349**		**511.4833**

3.11 Foundation Removal-2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3354	20.7945	16.9521	0.0300		1.2057	1.2057		1.1729	1.1729		2,875.3497	2,875.3497	0.4204		2,885.8586
Total	**2.3354**	**20.7945**	**16.9521**	**0.0300**		**1.2057**	**1.2057**		**1.1729**	**1.1729**		**2,875.3497**	**2,875.3497**	**0.4204**		**2,885.8586**

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	0.0122	0.5366	0.0638	1.7000e-003	6.9578	1.9000e-003	6.9597	0.6976	1.8200e-003	0.6994		178.3694	178.3694	9.2300e-003		178.6001
Vendor	0.0357	1.0541	0.2481	2.3700e-003	32.3640	6.4300e-003	32.3704	3.2345	6.1500e-003	3.2406		247.8608	247.8608	0.0216		248.4015
Worker	0.0917	0.0577	0.7178	1.2500e-003	45.3619	7.6000e-004	45.3626	4.5338	7.0000e-004	4.5345		124.4585	124.4585	6.0400e-003		124.6095
Total	**0.1397**	**1.6484**	**1.0297**	**5.3200e-003**	**84.6836**	**9.0900e-003**	**84.6927**	**8.4659**	**8.6700e-003**	**8.4746**		**550.6887**	**550.6887**	**0.0369**		**551.6112**

3.11 Foundation Removal-2 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3354	20.7945	16.9521	0.0300		1.2057	1.2057		1.1729	1.1729	0.0000	2,875.3497	2,875.3497	0.4204		2,885.8586
Total	**2.3354**	**20.7945**	**16.9521**	**0.0300**		**1.2057**	**1.2057**		**1.1729**	**1.1729**	**0.0000**	**2,875.3497**	**2,875.3497**	**0.4204**		**2,885.8586**

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	0.0122	0.5366	0.0638	1.7000e-003	0.4401	1.9000e-003	0.4420	0.0471	1.8200e-003	0.0490		178.3694	178.3694	9.2300e-003		178.6001
Vendor	0.0357	1.0541	0.2481	2.3700e-003	1.9997	6.4300e-003	2.0061	0.2043	6.1500e-003	0.2104		247.8608	247.8608	0.0216		248.4015
Worker	0.0917	0.0577	0.7178	1.2500e-003	2.8093	7.6000e-004	2.8101	0.2873	7.0000e-004	0.2880		124.4585	124.4585	6.0400e-003		124.6095
Total	**0.1397**	**1.6484**	**1.0297**	**5.3200e-003**	**5.2492**	**9.0900e-003**	**5.2583**	**0.5387**	**8.6700e-003**	**0.5473**		**550.6887**	**550.6887**	**0.0369**		**551.6112**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.482259	0.038261	0.180775	0.132303	0.018096	0.005727	0.021216	0.108810	0.002699	0.002023	0.006057	0.000794	0.000981

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	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	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Unmitigated	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**		**0.2337**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**		**0.2337**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs Wind Energy Repowering Project

Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1,000.00	User Defined Unit	5.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.4	**Precipitation Freq (Days)**	20
Climate Zone	10			**Operational Year**	2019
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 - Acreage based on disturbed area for project.

Construction Phase - Based on applicant provided construction schedule.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction assumptions.

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Winter

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided construction assumptions.

Off-road Equipment - Based on applicant provided data.

Off-road Equipment - Based on applicant provided construction data.

Off-road Equipment - Based on applicant provided construction data.

Trips and VMT - Based on applicant provided construction assumptions.

On-road Fugitive Dust - Based on distance from Indian Canyon Dr. Road silt loading based on CARB Entrained Paved Road Dust Paved Roat Travel, July 1997.

Demolition -

Grading - CalEEMod defaults.

Consumer Products - No consumer products.

Area Coating - No architectural coatings.

Landscape Equipment - No landscaping

Water And Wastewater - Based on 16,000 gallons per day for dust suppression.

Construction Off-road Equipment Mitigation - Water for dust suppression.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	33.00
tblConstructionPhase	NumDays	230.00	22.00
tblConstructionPhase	NumDays	230.00	21.00
tblConstructionPhase	NumDays	20.00	32.00

tblConstructionPhase	NumDays	20.00	97.00
tblConstructionPhase	NumDays	20.00	32.00
tblConstructionPhase	NumDays	20.00	100.00
tblConstructionPhase	NumDays	8.00	35.00
tblConstructionPhase	NumDays	8.00	42.00
tblConstructionPhase	NumDays	5.00	10.00
tblGrading	AcresOfGrading	10.50	10.00
tblGrading	AcresOfGrading	2.50	13.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
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tblOffRoadEquipment	UsageHours	7.00	4.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOnRoadDust	HaulingPercentPave	50.00	89.00
tblOnRoadDust	HaulingPercentPave	50.00	89.00
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tblOnRoadDust	HaulingPercentPave	50.00	89.00
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tblOnRoadDust	HaulingPercentPave	50.00	89.00
tblOnRoadDust	HaulingPercentPave	50.00	89.00
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
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tblOnRoadDust	VendorPercentPave	50.00	59.30
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tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30

tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	VendorPercentPave	50.00	59.30
tblOnRoadDust	WorkerPercentPave	50.00	80.00
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tblOnRoadDust	WorkerPercentPave	50.00	80.00
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tblOnRoadDust	WorkerPercentPave	50.00	80.00
tblOnRoadDust	WorkerPercentPave	50.00	80.00
tblTripsAndVMT	HaulingTripNumber	0.00	67.00
tblTripsAndVMT	HaulingTripNumber	0.00	208.00
tblTripsAndVMT	HaulingTripNumber	0.00	68.00
tblTripsAndVMT	HaulingTripNumber	0.00	209.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	28.00

tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	14.00
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	0.00	14.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblWater	OutdoorWaterUseRate	0.00	2,960,000.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.2336	67.9250	43.4036	0.0850	221.8805	3.6851	225.5656	24.8996	3.5393	28.4389	0.0000	8,342.3395	8,342.3395	1.3915	0.0000	8,377.1276
2019	5.6281	59.8914	33.2236	0.0739	207.5361	2.8229	210.3591	20.7414	2.6613	23.4027	0.0000	7,299.9299	7,299.9299	1.5202	0.0000	7,337.9346
Maximum	**7.2336**	**67.9250**	**43.4036**	**0.0850**	**221.8805**	**3.6851**	**225.5656**	**24.8996**	**3.5393**	**28.4389**	**0.0000**	**8,342.3395**	**8,342.3395**	**1.5202**	**0.0000**	**8,377.1276**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.2336	67.9250	43.4036	0.0850	16.1755	3.6851	19.8606	2.7115	3.5393	6.2508	0.0000	8,342.3395	8,342.3395	1.3915	0.0000	8,377.1276
2019	5.6281	59.8914	33.2236	0.0739	12.8401	2.8229	15.6631	2.2150	2.6613	3.9728	0.0000	7,299.9299	7,299.9299	1.5202	0.0000	7,337.9346
Maximum	**7.2336**	**67.9250**	**43.4036**	**0.0850**	**16.1755**	**3.6851**	**19.8606**	**2.7115**	**3.5393**	**6.2508**	**0.0000**	**8,342.3395**	**8,342.3395**	**1.5202**	**0.0000**	**8,377.1276**

	ROG	NOx	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**	**93.24**	**0.00**	**91.85**	**89.21**	**0.00**	**80.28**	**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	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**	**0.0000**	**0.2337**

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	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**	**0.0000**	**0.2337**

	ROG	NOx	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	Turbine Decommissioning-1	Demolition	11/1/2018	12/14/2018	5	32	
2	Foundation Removal-1	Demolition	11/1/2018	12/14/2018	5	32	
3	Mobilization/Laydown	Site Preparation	12/1/2018	12/14/2018	5	10	
4	Site Prep/Grading	Grading	12/15/2018	2/1/2019	5	35	
5	Roads	Grading	2/1/2019	4/1/2019	5	42	
6	Collection	Building Construction	4/1/2019	5/15/2019	5	33	
7	Foundations	Building Construction	5/15/2019	6/13/2019	5	22	
8	Install	Building Construction	6/15/2019	7/15/2019	5	21	
9	Turbine Decommissioning-2	Demolition	7/15/2019	11/29/2019	5	100	
10	Foundation Removal-2	Demolition	8/1/2019	12/13/2019	5	97	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Turbine Decommissioning-1	Air Compressors	2	8.00	78	0.48
Turbine Decommissioning-1	Concrete/Industrial Saws	0	8.00	81	0.73
Turbine Decommissioning-1	Cranes	1	8.00	231	0.29
Turbine Decommissioning-1	Excavators	0	8.00	158	0.38
Turbine Decommissioning-1	Generator Sets	2	8.00	84	0.74
Turbine Decommissioning-1	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-1	Air Compressors	2	8.00	78	0.48
Foundation Removal-1	Concrete/Industrial Saws	0	8.00	81	0.73
Foundation Removal-1	Cranes	1	8.00	231	0.29
Foundation Removal-1	Excavators	0	8.00	158	0.38
Foundation Removal-1	Generator Sets	2	8.00	84	0.74
Foundation Removal-1	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-1	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Foundation Removal-2	Air Compressors	2	8.00	78	0.48
Foundation Removal-2	Concrete/Industrial Saws	0	8.00	81	0.73
Foundation Removal-2	Cranes	1	8.00	231	0.29
Foundation Removal-2	Excavators	0	8.00	158	0.38
Foundation Removal-2	Generator Sets	2	8.00	84	0.74
Foundation Removal-2	Rubber Tired Dozers	0	8.00	247	0.40
Foundation Removal-2	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Turbine Decommissioning-2	Air Compressors	2	8.00	78	0.48
Turbine Decommissioning-2	Concrete/Industrial Saws	0	8.00	81	0.73
Turbine Decommissioning-2	Cranes	1	8.00	231	0.29
Turbine Decommissioning-2	Excavators	0	8.00	158	0.38
Turbine Decommissioning-2	Generator Sets	2	8.00	84	0.74
Turbine Decommissioning-2	Rubber Tired Dozers	0	8.00	247	0.40

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Winter

Mobilization/Laydown	Forklifts	1	8.00	89	0.20
Mobilization/Laydown	Graders	1	4.00	187	0.41
Mobilization/Laydown	Rollers	1	4.00	80	0.38
Mobilization/Laydown	Rubber Tired Dozers	2	4.00	247	0.40
Mobilization/Laydown	Rubber Tired Loaders	0	8.00	203	0.36
Mobilization/Laydown	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Roads	Excavators	0	8.00	158	0.38
Roads	Forklifts	1	8.00	89	0.20
Roads	Graders	1	4.00	187	0.41
Roads	Rollers	1	4.00	80	0.38
Roads	Rubber Tired Dozers	1	4.00	247	0.40
Roads	Rubber Tired Loaders	0	8.00	203	0.36
Roads	Scrapers	0	8.00	367	0.48
Roads	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Site Prep/Grading	Excavators	0	4.00	158	0.38
Site Prep/Grading	Forklifts	1	8.00	89	0.20
Site Prep/Grading	Graders	1	4.00	187	0.41
Site Prep/Grading	Rollers	1	4.00	80	0.38
Site Prep/Grading	Rubber Tired Dozers	1	4.00	247	0.40
Site Prep/Grading	Rubber Tired Loaders	0	8.00	203	0.36
Site Prep/Grading	Tractors/Loaders/Backhoes	2	4.00	97	0.37
Foundations	Cranes	0	8.00	231	0.29
Foundations	Excavators	1	4.00	158	0.38
Foundations	Forklifts	1	8.00	89	0.20
Foundations	Generator Sets	0	8.00	84	0.74
Foundations	Graders	1	4.00	187	0.41
Foundations	Rollers	1	4.00	80	0.38

Foundations	Rubber Tired Dozers	2	4.00	247	0.40
Foundations	Rubber Tired Loaders	0	8.00	203	0.36
Foundations	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Foundations	Welders	0	8.00	46	0.45
Collection	Cranes	1	8.00	231	0.29
Collection	Excavators	1	4.00	158	0.38
Collection	Forklifts	2	8.00	89	0.20
Collection	Generator Sets	0	8.00	84	0.74
Collection	Graders	1	4.00	187	0.41
Collection	Rollers	1	4.00	80	0.38
Collection	Rubber Tired Dozers	1	4.00	247	0.40
Collection	Rubber Tired Loaders	0	8.00	203	0.36
Collection	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Collection	Trenchers	1	4.00	78	0.50
Collection	Welders	0	8.00	46	0.45
Install	Cranes	4	8.00	231	0.29
Install	Forklifts	2	8.00	89	0.20
Install	Generator Sets	0	8.00	84	0.74
Install	Rollers	1	4.00	80	0.38
Install	Rubber Tired Dozers	1	4.00	247	0.40
Install	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Install	Trenchers	1	4.00	78	0.50
Install	Welders	0	8.00	46	0.45

Trips and VMT

Desert Hot Springs Wind Energy Repowering Project - Salton Sea Air Basin, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Turbine Decommissioning-1	5	10.00	10.00	67.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Removal-1	7	14.00	10.00	68.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundation Removal-2	7	14.00	10.00	208.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Turbine Decommissioning-2	5	10.00	10.00	209.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Mobilization/Laydown	6	12.00	6.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Roads	6	24.00	2.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep/Grading	6	14.00	4.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Foundations	7	14.00	28.00	0.00	11.00	5.40	20.00	LD_Mix	HHDT	HHDT
Collection	9	18.00	4.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Install	9	18.00	24.00	0.00	11.00	5.40	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Turbine Decommissioning-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3779	20.3962	14.9608	0.0269		1.2207	1.2207		1.1971	1.1971		2,577.1965	2,577.1965	0.3420		2,585.7455
Total	**2.3779**	**20.3962**	**14.9608**	**0.0269**		**1.2207**	**1.2207**		**1.1971**	**1.1971**		**2,577.1965**	**2,577.1965**	**0.3420**		**2,585.7455**

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	0.0133	0.5734	0.0785	1.6200e-003	6.7936	2.1200e-003	6.7958	0.6811	2.0300e-003	0.6832		170.6299	170.6299	0.0104		170.8909
Vendor	0.0414	1.1219	0.3236	2.2700e-003	32.3640	7.7100e-003	32.3717	3.2345	7.3800e-003	3.2419		237.1369	237.1369	0.0254		237.7711
Worker	0.0587	0.0475	0.4069	7.8000e-004	32.4013	5.5000e-004	32.4019	3.2385	5.1000e-004	3.2390		77.0940	77.0940	3.7600e-003		77.1880
Total	**0.1134**	**1.7427**	**0.8090**	**4.6700e-003**	**71.5589**	**0.0104**	**71.5693**	**7.1541**	**9.9200e-003**	**7.1640**		**484.8608**	**484.8608**	**0.0396**		**485.8499**

3.2 Turbine Decommissioning-1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3779	20.3962	14.9608	0.0269		1.2207	1.2207		1.1971	1.1971	0.0000	2,577.1965	2,577.1965	0.3420		2,585.7455
Total	**2.3779**	**20.3962**	**14.9608**	**0.0269**		**1.2207**	**1.2207**		**1.1971**	**1.1971**	**0.0000**	**2,577.1965**	**2,577.1965**	**0.3420**		**2,585.7455**

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	0.0133	0.5734	0.0785	1.6200e-003	0.4298	2.1200e-003	0.4319	0.0460	2.0300e-003	0.0481		170.6299	170.6299	0.0104		170.8909
Vendor	0.0414	1.1219	0.3236	2.2700e-003	1.9997	7.7100e-003	2.0074	0.2043	7.3800e-003	0.2116		237.1369	237.1369	0.0254		237.7711
Worker	0.0587	0.0475	0.4069	7.8000e-004	2.0067	5.5000e-004	2.0072	0.2052	5.1000e-004	0.2057		77.0940	77.0940	3.7600e-003		77.1880
Total	**0.1134**	**1.7427**	**0.8090**	**4.6700e-003**	**4.4361**	**0.0104**	**4.4465**	**0.4555**	**9.9200e-003**	**0.4654**		**484.8608**	**484.8608**	**0.0396**		**485.8499**

3.3 Foundation Removal-1 - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6440	23.0259	17.2975	0.0300		1.4070	1.4070		1.3685	1.3685		2,889.9725	2,889.9725	0.4393		2,900.9558
Total	**2.6440**	**23.0259**	**17.2975**	**0.0300**		**1.4070**	**1.4070**		**1.3685**	**1.3685**		**2,889.9725**	**2,889.9725**	**0.4393**		**2,900.9558**

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	0.0135	0.5819	0.0797	1.6500e-003	6.8950	2.1500e-003	6.8972	0.6913	2.0600e-003	0.6934		173.1766	173.1766	0.0106		173.4415
Vendor	0.0414	1.1219	0.3236	2.2700e-003	32.3640	7.7100e-003	32.3717	3.2345	7.3800e-003	3.2419		237.1369	237.1369	0.0254		237.7711
Worker	0.0822	0.0665	0.5696	1.0900e-003	45.3619	7.7000e-004	45.3626	4.5338	7.1000e-004	4.5345		107.9315	107.9315	5.2600e-003		108.0631
Total	**0.1370**	**1.7703**	**0.9729**	**5.0100e-003**	**84.6209**	**0.0106**	**84.6315**	**8.4596**	**0.0102**	**8.4698**		**518.2451**	**518.2451**	**0.0412**		**519.2757**

3.3 Foundation Removal-1 - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6440	23.0259	17.2975	0.0300		1.4070	1.4070		1.3685	1.3685	0.0000	2,889.9725	2,889.9725	0.4393		2,900.9558
Total	**2.6440**	**23.0259**	**17.2975**	**0.0300**		**1.4070**	**1.4070**		**1.3685**	**1.3685**	**0.0000**	**2,889.9725**	**2,889.9725**	**0.4393**		**2,900.9558**

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	0.0135	0.5819	0.0797	1.6500e-003	0.4362	2.1500e-003	0.4383	0.0467	2.0600e-003	0.0488		173.1766	173.1766	0.0106		173.4415
Vendor	0.0414	1.1219	0.3236	2.2700e-003	1.9997	7.7100e-003	2.0074	0.2043	7.3800e-003	0.2116		237.1369	237.1369	0.0254		237.7711
Worker	0.0822	0.0665	0.5696	1.0900e-003	2.8093	7.7000e-004	2.8101	0.2873	7.1000e-004	0.2880		107.9315	107.9315	5.2600e-003		108.0631
Total	**0.1370**	**1.7703**	**0.9729**	**5.0100e-003**	**5.2452**	**0.0106**	**5.2559**	**0.5382**	**0.0102**	**0.5484**		**518.2451**	**518.2451**	**0.0412**		**519.2757**

3.4 Mobilization/Laydown - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4007	0.0000	7.4007	3.4591	0.0000	3.4591			0.0000			0.0000
Off-Road	1.8661	20.2598	8.6811	0.0163		1.0310	1.0310		0.9485	0.9485		1,637.2698	1,637.2698	0.5097		1,650.0124
Total	**1.8661**	**20.2598**	**8.6811**	**0.0163**	**7.4007**	**1.0310**	**8.4318**	**3.4591**	**0.9485**	**4.4076**		**1,637.2698**	**1,637.2698**	**0.5097**		**1,650.0124**

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	0.0248	0.6731	0.1941	1.3600e-003	19.4184	4.6300e-003	19.4230	1.9407	4.4300e-003	1.9451		142.2822	142.2822	0.0152		142.6627
Worker	0.0704	0.0570	0.4882	9.3000e-004	38.8816	6.6000e-004	38.8823	3.8861	6.1000e-004	3.8868		92.5127	92.5127	4.5100e-003		92.6256
Total	**0.0952**	**0.7301**	**0.6824**	**2.2900e-003**	**58.3000**	**5.2900e-003**	**58.3053**	**5.8268**	**5.0400e-003**	**5.8319**		**234.7949**	**234.7949**	**0.0197**		**235.2882**

3.4 Mobilization/Laydown - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8863	0.0000	2.8863	1.3490	0.0000	1.3490			0.0000			0.0000
Off-Road	1.8661	20.2598	8.6811	0.0163		1.0310	1.0310		0.9485	0.9485	0.0000	1,637.2698	1,637.2698	0.5097		1,650.0124
Total	**1.8661**	**20.2598**	**8.6811**	**0.0163**	**2.8863**	**1.0310**	**3.9173**	**1.3490**	**0.9485**	**2.2976**	**0.0000**	**1,637.2698**	**1,637.2698**	**0.5097**		**1,650.0124**

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	0.0248	0.6731	0.1941	1.3600e-003	1.1998	4.6300e-003	1.2045	0.1226	4.4300e-003	0.1270		142.2822	142.2822	0.0152		142.6627
Worker	0.0704	0.0570	0.4882	9.3000e-004	2.4080	6.6000e-004	2.4087	0.2462	6.1000e-004	0.2468		92.5127	92.5127	4.5100e-003		92.6256
Total	**0.0952**	**0.7301**	**0.6824**	**2.2900e-003**	**3.6078**	**5.2900e-003**	**3.6131**	**0.3688**	**5.0400e-003**	**0.3738**		**234.7949**	**234.7949**	**0.0197**		**235.2882**

3.5 Site Prep/Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2762	0.0000	3.2762	1.6837	0.0000	1.6837			0.0000			0.0000
Off-Road	1.4161	15.2947	7.6613	0.0135		0.8189	0.8189		0.7534	0.7534		1,363.5711	1,363.5711	0.4245		1,374.1835
Total	**1.4161**	**15.2947**	**7.6613**	**0.0135**	**3.2762**	**0.8189**	**4.0951**	**1.6837**	**0.7534**	**2.4371**		**1,363.5711**	**1,363.5711**	**0.4245**		**1,374.1835**

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	0.0165	0.4487	0.1294	9.1000e-004	12.9456	3.0800e-003	12.9487	1.2938	2.9500e-003	1.2967		94.8548	94.8548	0.0102		95.1085
Worker	0.0822	0.0665	0.5696	1.0900e-003	45.3619	7.7000e-004	45.3626	4.5338	7.1000e-004	4.5345		107.9315	107.9315	5.2600e-003		108.0631
Total	**0.0987**	**0.5153**	**0.6990**	**2.0000e-003**	**58.3074**	**3.8500e-003**	**58.3113**	**5.8276**	**3.6600e-003**	**5.8313**		**202.7863**	**202.7863**	**0.0154**		**203.1716**

3.5 Site Prep/Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2777	0.0000	1.2777	0.6567	0.0000	0.6567			0.0000			0.0000
Off-Road	1.4161	15.2947	7.6613	0.0135		0.8189	0.8189		0.7534	0.7534	0.0000	1,363.5711	1,363.5711	0.4245		1,374.1835
Total	**1.4161**	**15.2947**	**7.6613**	**0.0135**	**1.2777**	**0.8189**	**2.0966**	**0.6567**	**0.7534**	**1.4100**	**0.0000**	**1,363.5711**	**1,363.5711**	**0.4245**		**1,374.1835**

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	0.0165	0.4487	0.1294	9.1000e-004	0.7999	3.0800e-003	0.8030	0.0817	2.9500e-003	0.0847		94.8548	94.8548	0.0102		95.1085
Worker	0.0822	0.0665	0.5696	1.0900e-003	2.8093	7.7000e-004	2.8101	0.2873	7.1000e-004	0.2880		107.9315	107.9315	5.2600e-003		108.0631
Total	**0.0987**	**0.5153**	**0.6990**	**2.0000e-003**	**3.6092**	**3.8500e-003**	**3.6131**	**0.3690**	**3.6600e-003**	**0.3726**		**202.7863**	**202.7863**	**0.0154**		**203.1716**

3.5 Site Prep/Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2762	0.0000	3.2762	1.6837	0.0000	1.6837			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811		1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**3.2762**	**0.7403**	**4.0165**	**1.6837**	**0.6811**	**2.3648**		**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	0.0150	0.4215	0.1172	9.0000e-004	12.9456	2.6200e-003	12.9482	1.2938	2.5100e-003	1.2963		94.1672	94.1672	9.7000e-003		94.4096
Worker	0.0753	0.0595	0.5152	1.0500e-003	45.3619	7.6000e-004	45.3626	4.5338	7.0000e-004	4.5345		104.5795	104.5795	4.7700e-003		104.6988
Total	**0.0903**	**0.4811**	**0.6324**	**1.9500e-003**	**58.3074**	**3.3800e-003**	**58.3108**	**5.8276**	**3.2100e-003**	**5.8308**		**198.7467**	**198.7467**	**0.0145**		**199.1085**

3.5 Site Prep/Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2777	0.0000	1.2777	0.6567	0.0000	0.6567			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811	0.0000	1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**1.2777**	**0.7403**	**2.0180**	**0.6567**	**0.6811**	**1.3377**	**0.0000**	**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	0.0150	0.4215	0.1172	9.0000e-004	0.7999	2.6200e-003	0.8025	0.0817	2.5100e-003	0.0842		94.1672	94.1672	9.7000e-003		94.4096
Worker	0.0753	0.0595	0.5152	1.0500e-003	2.8093	7.6000e-004	2.8101	0.2873	7.0000e-004	0.2880		104.5795	104.5795	4.7700e-003		104.6988
Total	**0.0903**	**0.4811**	**0.6324**	**1.9500e-003**	**3.6092**	**3.3800e-003**	**3.6126**	**0.3690**	**3.2100e-003**	**0.3722**		**198.7467**	**198.7467**	**0.0145**		**199.1085**

3.6 Roads - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2635	0.0000	3.2635	1.6824	0.0000	1.6824			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811		1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**3.2635**	**0.7403**	**4.0038**	**1.6824**	**0.6811**	**2.3635**		**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	7.4900e-003	0.2108	0.0586	4.5000e-004	6.4728	1.3100e-003	6.4741	0.6469	1.2500e-003	0.6482		47.0836	47.0836	4.8500e-003		47.2048
Worker	0.1291	0.1021	0.8833	1.8000e-003	77.7632	1.3000e-003	77.7645	7.7723	1.2000e-003	7.7735		179.2791	179.2791	8.1800e-003		179.4837
Total	**0.1366**	**0.3128**	**0.9418**	**2.2500e-003**	**84.2360**	**2.6100e-003**	**84.2386**	**8.4192**	**2.4500e-003**	**8.4216**		**226.3627**	**226.3627**	**0.0130**		**226.6885**

3.6 Roads - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2728	0.0000	1.2728	0.6561	0.0000	0.6561			0.0000			0.0000
Off-Road	1.3167	14.2131	7.5116	0.0135		0.7403	0.7403		0.6811	0.6811	0.0000	1,340.2320	1,340.2320	0.4240		1,350.8328
Total	**1.3167**	**14.2131**	**7.5116**	**0.0135**	**1.2728**	**0.7403**	**2.0131**	**0.6561**	**0.6811**	**1.3372**	**0.0000**	**1,340.2320**	**1,340.2320**	**0.4240**		**1,350.8328**

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	7.4900e-003	0.2108	0.0586	4.5000e-004	0.3999	1.3100e-003	0.4013	0.0409	1.2500e-003	0.0421		47.0836	47.0836	4.8500e-003		47.2048
Worker	0.1291	0.1021	0.8833	1.8000e-003	4.8160	1.3000e-003	4.8173	0.4924	1.2000e-003	0.4936		179.2791	179.2791	8.1800e-003		179.4837
Total	**0.1366**	**0.3128**	**0.9418**	**2.2500e-003**	**5.2160**	**2.6100e-003**	**5.2186**	**0.5333**	**2.4500e-003**	**0.5357**		**226.3627**	**226.3627**	**0.0130**		**226.6885**

3.7 Collection - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2118	23.7793	12.7986	0.0235		1.2403	1.2403		1.1411	1.1411		2,331.4816	2,331.4816	0.7377		2,349.9230
Total	**2.2118**	**23.7793**	**12.7986**	**0.0235**		**1.2403**	**1.2403**		**1.1411**	**1.1411**		**2,331.4816**	**2,331.4816**	**0.7377**		**2,349.9230**

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	0.0150	0.4215	0.1172	9.0000e-004	12.9456	2.6200e-003	12.9482	1.2938	2.5100e-003	1.2963		94.1672	94.1672	9.7000e-003		94.4096
Worker	0.0968	0.0765	0.6624	1.3500e-003	58.3224	9.8000e-004	58.3234	5.8292	9.0000e-004	5.8301		134.4593	134.4593	6.1400e-003		134.6128
Total	**0.1118**	**0.4981**	**0.7796**	**2.2500e-003**	**71.2680**	**3.6000e-003**	**71.2716**	**7.1230**	**3.4100e-003**	**7.1264**		**228.6265**	**228.6265**	**0.0158**		**229.0224**

3.7 Collection - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2118	23.7793	12.7986	0.0235		1.2403	1.2403		1.1411	1.1411	0.0000	2,331.4816	2,331.4816	0.7377		2,349.9230
Total	**2.2118**	**23.7793**	**12.7986**	**0.0235**		**1.2403**	**1.2403**		**1.1411**	**1.1411**	**0.0000**	**2,331.4816**	**2,331.4816**	**0.7377**		**2,349.9230**

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	0.0150	0.4215	0.1172	9.0000e-004	0.7999	2.6200e-003	0.8025	0.0817	2.5100e-003	0.0842		94.1672	94.1672	9.7000e-003		94.4096
Worker	0.0968	0.0765	0.6624	1.3500e-003	3.6120	9.8000e-004	3.6130	0.3693	9.0000e-004	0.3702		134.4593	134.4593	6.1400e-003		134.6128
Total	**0.1118**	**0.4981**	**0.7796**	**2.2500e-003**	**4.4119**	**3.6000e-003**	**4.4155**	**0.4510**	**3.4100e-003**	**0.4544**		**228.6265**	**228.6265**	**0.0158**		**229.0224**

3.8 Foundations - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8979	20.4226	10.1339	0.0188		1.0213	1.0213		0.9396	0.9396		1,864.7381	1,864.7381	0.5900		1,879.4876
Total	**1.8979**	**20.4226**	**10.1339**	**0.0188**		**1.0213**	**1.0213**		**0.9396**	**0.9396**		**1,864.7381**	**1,864.7381**	**0.5900**		**1,879.4876**

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	0.1064	4.3471	0.6310	9.0200e-003	90.6115	8.5700e-003	90.6200	9.0526	8.2000e-003	9.0608		947.1445	947.1445	0.1248		950.2651
Worker	0.0753	0.0595	0.5152	1.0500e-003	45.3619	7.6000e-004	45.3626	4.5338	7.0000e-004	4.5345		104.5795	104.5795	4.7700e-003		104.6988
Total	**0.1816**	**4.4066**	**1.1462**	**0.0101**	**135.9733**	**9.3300e-003**	**135.9826**	**13.5864**	**8.9000e-003**	**13.5953**		**1,051.7239**	**1,051.7239**	**0.1296**		**1,054.9639**

3.8 Foundations - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8979	20.4226	10.1339	0.0188		1.0213	1.0213		0.9396	0.9396	0.0000	1,864.7381	1,864.7381	0.5900		1,879.4876
Total	**1.8979**	**20.4226**	**10.1339**	**0.0188**		**1.0213**	**1.0213**		**0.9396**	**0.9396**	**0.0000**	**1,864.7381**	**1,864.7381**	**0.5900**		**1,879.4876**

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	0.1064	4.3471	0.6310	9.0200e-003	5.5915	8.5700e-003	5.6001	0.5679	8.2000e-003	0.5761		947.1445	947.1445	0.1248		950.2651
Worker	0.0753	0.0595	0.5152	1.0500e-003	2.8093	7.6000e-004	2.8101	0.2873	7.0000e-004	0.2880		104.5795	104.5795	4.7700e-003		104.6988
Total	**0.1816**	**4.4066**	**1.1462**	**0.0101**	**8.4009**	**9.3300e-003**	**8.4102**	**0.8552**	**8.9000e-003**	**0.8641**		**1,051.7239**	**1,051.7239**	**0.1296**		**1,054.9639**

3.9 Install - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2337	36.0009	15.9758	0.0334		1.7559	1.7559		1.6155	1.6155		3,306.9660	3,306.9660	1.0463		3,333.1233
Total	**3.2337**	**36.0009**	**15.9758**	**0.0334**		**1.7559**	**1.7559**		**1.6155**	**1.6155**		**3,306.9660**	**3,306.9660**	**1.0463**		**3,333.1233**

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	0.0912	3.7261	0.5409	7.7300e-003	77.6670	7.3500e-003	77.6743	7.7593	7.0300e-003	7.7664		811.8381	811.8381	0.1070		814.5129
Worker	0.0968	0.0765	0.6624	1.3500e-003	58.3224	9.8000e-004	58.3234	5.8292	9.0000e-004	5.8301		134.4593	134.4593	6.1400e-003		134.6128
Total	**0.1880**	**3.8026**	**1.2033**	**9.0800e-003**	**135.9893**	**8.3300e-003**	**135.9977**	**13.5885**	**7.9300e-003**	**13.5965**		**946.2974**	**946.2974**	**0.1131**		**949.1257**

3.9 Install - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2337	36.0009	15.9758	0.0334		1.7559	1.7559		1.6155	1.6155	0.0000	3,306.9660	3,306.9660	1.0463		3,333.1233
Total	**3.2337**	**36.0009**	**15.9758**	**0.0334**		**1.7559**	**1.7559**		**1.6155**	**1.6155**	**0.0000**	**3,306.9660**	**3,306.9660**	**1.0463**		**3,333.1233**

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	0.0912	3.7261	0.5409	7.7300e-003	4.7927	7.3500e-003	4.8001	0.4868	7.0300e-003	0.4938		811.8381	811.8381	0.1070		814.5129
Worker	0.0968	0.0765	0.6624	1.3500e-003	3.6120	9.8000e-004	3.6130	0.3693	9.0000e-004	0.3702		134.4593	134.4593	6.1400e-003		134.6128
Total	**0.1880**	**3.8026**	**1.2033**	**9.0800e-003**	**8.4048**	**8.3300e-003**	**8.4131**	**0.8561**	**7.9300e-003**	**0.8640**		**946.2974**	**946.2974**	**0.1131**		**949.1257**

3.10 Turbine Decommissioning-2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1026	18.4572	14.6494	0.0269		1.0497	1.0497		1.0293	1.0293		2,567.8079	2,567.8079	0.3231		2,575.8841
Total	**2.1026**	**18.4572**	**14.6494**	**0.0269**		**1.0497**	**1.0497**		**1.0293**	**1.0293**		**2,567.8079**	**2,567.8079**	**0.3231**		**2,575.8841**

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	0.0126	0.5344	0.0755	1.6100e-003	6.7815	1.9000e-003	6.7834	0.6799	1.8100e-003	0.6817		168.7410	168.7410	0.0101		168.9925
Vendor	0.0375	1.0539	0.2929	2.2500e-003	32.3640	6.5500e-003	32.3705	3.2345	6.2700e-003	3.2408		235.4180	235.4180	0.0243		236.0241
Worker	0.0538	0.0425	0.3680	7.5000e-004	32.4013	5.4000e-004	32.4019	3.2385	5.0000e-004	3.2390		74.6996	74.6996	3.4100e-003		74.7849
Total	**0.1039**	**1.6308**	**0.7365**	**4.6100e-003**	**71.5468**	**8.9900e-003**	**71.5558**	**7.1528**	**8.5800e-003**	**7.1614**		**478.8586**	**478.8586**	**0.0377**		**479.8015**

3.10 Turbine Decommissioning-2 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1026	18.4572	14.6494	0.0269		1.0497	1.0497		1.0293	1.0293	0.0000	2,567.8079	2,567.8079	0.3231		2,575.8841
Total	**2.1026**	**18.4572**	**14.6494**	**0.0269**		**1.0497**	**1.0497**		**1.0293**	**1.0293**	**0.0000**	**2,567.8079**	**2,567.8079**	**0.3231**		**2,575.8841**

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	0.0126	0.5344	0.0755	1.6100e-003	0.4290	1.9000e-003	0.4309	0.0460	1.8100e-003	0.0478		168.7410	168.7410	0.0101		168.9925
Vendor	0.0375	1.0539	0.2929	2.2500e-003	1.9997	6.5500e-003	2.0063	0.2043	6.2700e-003	0.2105		235.4180	235.4180	0.0243		236.0241
Worker	0.0538	0.0425	0.3680	7.5000e-004	2.0067	5.4000e-004	2.0072	0.2052	5.0000e-004	0.2057		74.6996	74.6996	3.4100e-003		74.7849
Total	**0.1039**	**1.6308**	**0.7365**	**4.6100e-003**	**4.4354**	**8.9900e-003**	**4.4444**	**0.4554**	**8.5800e-003**	**0.4640**		**478.8586**	**478.8586**	**0.0377**		**479.8015**

3.11 Foundation Removal-2 - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3354	20.7945	16.9521	0.0300		1.2057	1.2057		1.1729	1.1729		2,875.3497	2,875.3497	0.4204		2,885.8586
Total	**2.3354**	**20.7945**	**16.9521**	**0.0300**		**1.2057**	**1.2057**		**1.1729**	**1.1729**		**2,875.3497**	**2,875.3497**	**0.4204**		**2,885.8586**

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	0.0130	0.5483	0.0775	1.6500e-003	6.9578	1.9400e-003	6.9597	0.6976	1.8600e-003	0.6994		173.1275	173.1275	0.0103		173.3855
Vendor	0.0375	1.0539	0.2929	2.2500e-003	32.3640	6.5500e-003	32.3705	3.2345	6.2700e-003	3.2408		235.4180	235.4180	0.0243		236.0241
Worker	0.0753	0.0595	0.5152	1.0500e-003	45.3619	7.6000e-004	45.3626	4.5338	7.0000e-004	4.5345		104.5795	104.5795	4.7700e-003		104.6988
Total	**0.1257**	**1.6617**	**0.8856**	**4.9500e-003**	**84.6836**	**9.2500e-003**	**84.6928**	**8.4659**	**8.8300e-003**	**8.4747**		**513.1249**	**513.1249**	**0.0393**		**514.1084**

3.11 Foundation Removal-2 - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3354	20.7945	16.9521	0.0300		1.2057	1.2057		1.1729	1.1729	0.0000	2,875.3497	2,875.3497	0.4204		2,885.8586
Total	**2.3354**	**20.7945**	**16.9521**	**0.0300**		**1.2057**	**1.2057**		**1.1729**	**1.1729**	**0.0000**	**2,875.3497**	**2,875.3497**	**0.4204**		**2,885.8586**

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	0.0130	0.5483	0.0775	1.6500e-003	0.4401	1.9400e-003	0.4421	0.0471	1.8600e-003	0.0490		173.1275	173.1275	0.0103		173.3855
Vendor	0.0375	1.0539	0.2929	2.2500e-003	1.9997	6.5500e-003	2.0063	0.2043	6.2700e-003	0.2105		235.4180	235.4180	0.0243		236.0241
Worker	0.0753	0.0595	0.5152	1.0500e-003	2.8093	7.6000e-004	2.8101	0.2873	7.0000e-004	0.2880		104.5795	104.5795	4.7700e-003		104.6988
Total	**0.1257**	**1.6617**	**0.8856**	**4.9500e-003**	**5.2492**	**9.2500e-003**	**5.2584**	**0.5387**	**8.8300e-003**	**0.5475**		**513.1249**	**513.1249**	**0.0393**		**514.1084**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.482259	0.038261	0.180775	0.132303	0.018096	0.005727	0.021216	0.108810	0.002699	0.002023	0.006057	0.000794	0.000981

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					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	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	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Unmitigated	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**		**0.2337**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.7700e-003	9.6000e-004	0.1031	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2189	0.2189	5.9000e-004		0.2337
Total	**9.7700e-003**	**9.6000e-004**	**0.1031**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2189**	**0.2189**	**5.9000e-004**		**0.2337**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Desert Hot Springs GHG Benefits

SCE GHG Emission Factor (MT CO_2E/MWh)[1]	0.256
CEC RPS Renewables for 2016 (%)[2]	28.00
Fossil Fuel GHG Factor (MT CO_2E/MWh)[3]	0.356
Existing Power Production (MWh/yr)	7,860.00
Project Power Production (MWh/yr)	59,000.00
Net New Power Production (MWh/yr)	51,140.00
Fossil Fuel MT CO_2E	18,183.11
Total GHG Benefit over 30 Years (MT CO_2E)	545,493.33

Notes: [1] GHG emission factor for SCE taken from EEI ESG/Sustainability Template – Section 2: Quantitative Information .

[2] SCE renewables as reported in the 2016 CEC Power Content Label

[3] Assumes no use of renewable energy