3.0 ENVIRONMENTAL SETTING, IMPACTS, & MITIGATION MEASURES

3.1 Air Quality/Greenhouse Gas Emissions

3.1.1 Introduction

This section analyzes potential air quality and GHG impacts associated with construction and operation of the proposed Project. Information contained in this section is summarized from the 2019 *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis*, prepared by Burns & McDonnell (Appendix B). This document is provided as Appendix B of this SEIR. The assessments were based on the information and guidelines provided in CEQA. Methods, standards, and thresholds used in this analysis are based on those used by California Air Resources Board (CARB) and ICAPCD. Regional and local air quality conditions are presented, along with pertinent air quality standards and regulations. Mitigation measures are recommended, as necessary, to reduce significant air quality impacts.

3.1.2 Environmental Setting

The air quality and GHG emissions conditions previously described in Section 3.4 of the 2011 FEIR are similar to those that currently exist for the proposed Project. These air quality and GHG emissions environmental settings are provided in the following subsections.

3.1.3 Air Quality

The entire Imperial County (Project site included) lies within the Salton Sea Air Basin (SSAB), which is under the jurisdiction of ICAPCD. The SSAB consists of all of Imperial County and the southeast portion of Riverside County.

The SSAB is generally an arid desert region, with a significant portion located below sea level. A semi-permanent high-pressure cell blocks mid-latitude storms and causes sunny skies most of the time. 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 yearly precipitation. The wettest month in the SSAB is December, averaging 0.5 inches of rainfall, while the driest month is June, with measurable rainfall recorded only twice since 1914. Rainfall is highly variable, with precipitation from a single heavy storm event one year exceeding the entire annual total during a drought year. Average humidity can range from 28 percent in summer to 52 percent in winter.

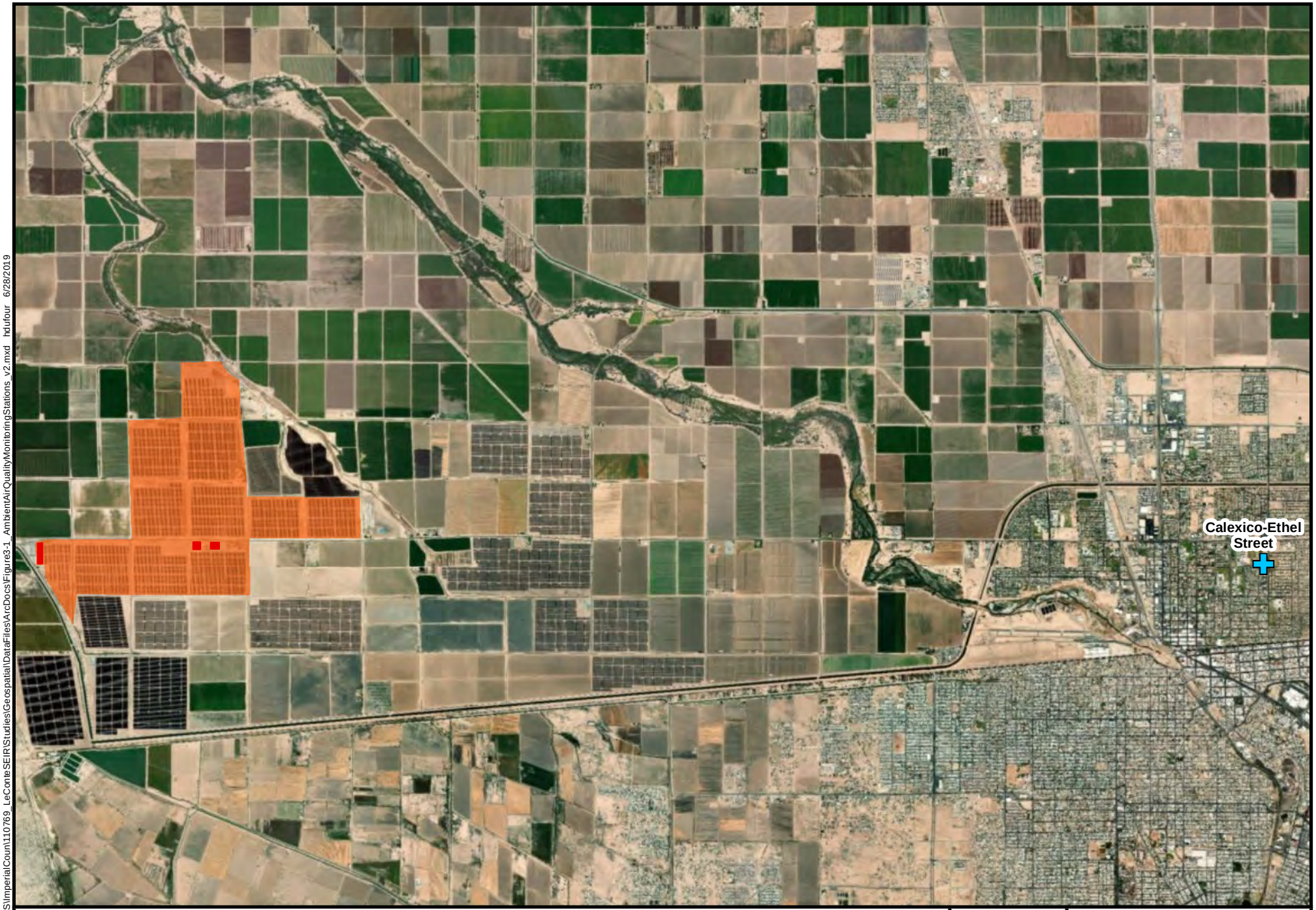
These climatic conditions are strongly influenced by the large-scale sinking and warming of air in the semi-permanent subtropical high-pressure center of the Pacific Ocean. The Peninsular Mountain range to the west blocks any coastal influence, such as cool and damp marine air. The geographic barriers and

atmospheric conditions limit precipitation in the area. The flat terrain of the SSAB and the strong temperature differentials created by intense solar heating produce moderate winds and deep thermal convection. The combination of subsiding air, protective mountains, and distance from the ocean all combine to severely limit precipitation. As a result, the climate of the Imperial Valley is arid, with hot summers and mild winters. While summers are intensely hot, the climate for the rest of the year is mild.

Regional air quality within the SSAB is affected by topography and atmospheric inversions. The area 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 prevailing winds tend to come from the west-northwest through southwest. The mountains to the east act as physical barriers to the dispersion of airborne contaminants.

Local to the Project area, criteria pollutants are measured continuously throughout Imperial County. Existing levels of ambient air concentrations and historical trends and projections in the project area are best documented by measurements made by the ICAPCD and CARB. This data is used to track ambient air quality patterns throughout the County and is also used to determine attainment status when compared to the NAAQS and CAAQS. The ICAPCD operates 10 monitoring sites, which collect data on criteria pollutants.

The closest station to the Project site is the Ethel Street Monitoring Station located in Calexico, which is approximately 11 miles East of the Project site (**Figure 3.1-1**). The most recent published data for the monitoring stations is presented in Table 3.1-1 which encompasses the years of 2016 through 2018 [Ambient data was obtained from the Environmental Protection Agency's Air Data Website (Source: https://www.epa.gov/outdoor-air-quality-data)]. Currently, the SSAB is either in attainment or unclassified for all federal and state air pollutant standards with the exception of 8-hour ozone, PM_{10}, and $PM_{2.5}$. Imperial County is classified as a "serious" nonattainment area for 24-hour PM_{10} standard and a "moderate" nonattainment for the 8-hour ozone standard. On November 13, 2009, EPA published air quality designations for the 2006 24-hour $PM_{2.5}$ NAAQS wherein Imperial County was listed as designated "moderate" nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS. On December 14, 2012, EPA issued its final rule revising the $PM_{2.5}$ NAAQS, by lowering the primary annual $PM_{2.5}$ standard from 15 micrograms per meter cubed ($\mu g/m^3$) to 12 $\mu g/m^3$ to provide increased protection against health effects associated with long- and short-term fine particle exposures. The EPA retained the primary 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$. In April 2015, Imperial County was classified as a "moderate" nonattainment for the 2012 Annual $PM_{2.5}$ standard.



Ambient Air Quality Monitoring Stations

Proposed Battery Energy Storage System

Solar Project

Centinela Solar

1.5 0 1.5

Miles

BURNS McDONNELL

Figure 3-1
Ambient Air Quality
Monitoring Stations
Imperial County, California

Issued: 6/28/2019

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The $PM_{2.5}$ (annual and 24-hour) nonattainment designation for Imperial County is only for the urban area within the County and it has been determined that the Project is located within the nonattainment boundaries for $PM_{2.5}$. As such, in order to comply with the ICAPCDs State Implementation Plan (SIP) and AAQP, the Project must implement Best Available Control Measure (BACM) and Best Available Control Technology (BACT) as outlined in the Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis (Burns & McDonnell, 2019) found in Appendix B.

Table 3.1-1: Latest Three-Year Ambient Air Quality Data Near Project Site

Pollutant	Closest Recorded Ambient Monitoring Site[1]	Averaging Time[a]	CAAQS[2]	NAAQS[3]	2016	2017	2018
Ozone	Calexico Ethel Street	1-hour (ppm)	0.09	--	0.10	0.12	0.10
		8-hour (ppm)	0.070	0.075	0.07	0.08	0.08
PM_{10}	Calexico Ethel Street	24-hour ($\mu g/m^3$)	50	150	226.00	319.00	225.00
$PM_{2.5}$	Calexico Ethel Street	24-hour ($\mu g/m^3$)	--	35	34.20	29.80	28.60
		Annual ($\mu g/m^3$)	12	12	12.51	11.51	12.43
NO_2	Calexico Ethel Street	1-hour ($\mu g/m^3$)	338	188	59.90	59.20	64.9
		Annual (ppb)	30	53	11.50	12.40	13.8

Source:
(1) EPA Air Data, https://www.epa.gov/outdoor-air-quality-data, Accessed April 13, 2019
(2) Title 17 California Code of Regulations Section 70200
(3) Title 40 CFR Part 50
(a) ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; ppb = parts per billion

3.1.3.1 Sensitive Receptors

Sensitive receptors are people who are considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are

also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The proposed Project site is surrounded by agricultural lands on all sides as well as land under the jurisdiction of the BLM immediately to the west. Existing residential uses on the Project site have been removed as part of the CSE facility, thereby eliminating potential exposure of residents. No sensitive receptors are located along roadway segments, as indicated in the 2011 FEIR.

3.1.4 Greenhouse Gas Emissions

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities appears to be closely associated with global warming.

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the Climate Registry, as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, or aerosols is provided.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO_2. The GWP of CO_2 is set to equal 1. CH_4 and N_2O are approximately 25 and 298 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere; thus, they have GWPs of 25 and 298, respectively. Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWPs. The

GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e. The atmospheric lifetime and GWP of selected GHGs are summarized in 3.1-2.

Table 3.1-2: Global Warming Potentials and Atmospheric Lifetimes

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon dioxide (CO_2)	50–200	1
Methane (CH_4)	12	25
Nitrous oxide (N_2O)	114	298
HFC-134a[a]	14	1,430
PFC[a]: Tetrafluoromethane (CF_4)	50,000	7,390
PFC[a]: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur hexafluoride (SF_6)	3,200	22,800

Source: IPCC, 2007
(a) HFC: hydrofluorocarbons; PFC: perfluorocarbons

3.1.5 Regulatory Setting

The relevant regulatory framework, as it applies to air quality and greenhouse gas emissions associated with the Project is summarized below.

3.1.5.1 Federal Plans, Policies, Regulations and Laws

The EPA has been charged with implementing national air quality programs at the Federal level. EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

The CAA required EPA to establish primary and secondary NAAQS. The CAA also required each state to prepare an air quality control plan referred to as a SIP. The Federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins, as reported by their jurisdictional agencies. The EPA has responsibility for reviewing all state SIPs to determine conformance with the mandates of the CAAA and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) that imposes additional control measures may be prepared for the nonattainment area. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in application of sanctions to transportation funding and stationary air pollution sources in the air basin.

In addition, general conformity requirements were adopted by Congress as part of the CAAA and were implemented by EPA regulations in 1993. General conformity requires that all Federal actions conform to the SIP as approved or promulgated by EPA. The purpose of the general conformity program is to ensure that actions taken by the Federal government do not undermine state or local efforts to achieve and maintain NAAQS. Before a Federal action is taken, it must be evaluated for conformity with the SIP. All reasonably foreseeable emissions, both direct and indirect, predicted to result from the action are taken into consideration and must be identified as to location and quantity. If it is found that the action would create emissions above *de minimis* threshold levels specified in EPA regulations, or if the activity is considered regionally significant because its emissions exceed 10 percent of an area's total emissions, the action cannot proceed unless mitigation measures are specified that would bring the Project into conformance.

General conformity applies in both Federal nonattainment and maintenance areas. Within these areas, it applies to any Federal action not specifically exempted by the CAA or EPA regulations. Emissions from construction activities are also included. General conformity does not apply to projects or actions that are covered by the transportation conformity rule. If a Federal action falls under the general conformity rule, the Federal agency responsible for the action is responsible for making the conformity determination. In some instances, a state will make the conformity determination under delegation from a Federal agency.

3.1.5.2 State Plans, Policies, Regulations and Laws

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA. The CCAA, which was adopted in 1988, required CARB to establish CAAQS. The CCAA requires that all local air districts in the State endeavor to achieve and maintain the CAAQS by the earliest practical date. The Act specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources and provides districts with the authority to regulate indirect sources.

Other CARB responsibilities include overseeing compliance with California and Federal laws by local air districts, approving local air quality plans, submitting SIPs to EPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is a source of substantial amounts of GHG emissions. The statute states:

Global warming poses a serious threat to the economic wellbeing, public health, natural

resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to help avert these potential consequences, AB 32 established a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 16 percent from forecasted emission levels, with further reductions to follow. In 2016, Senate Bill 32 (SB 32) was passed, which increased the required reduction to 40 percent below 1990 levels by 2030.

3.1.5.3 Regional and Local Plans, Policies, Regulations and Laws

3.1.5.3.1 Regional Comprehensive Plan and Guide

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM2.5 standard.

ICAPCD is the government agency which regulates stationary sources of air pollution within Imperial County and SSAB. Currently, the SSAB is in "moderate" non-attainment status for ozone, "serious" non-attainment status for PM_{10} (24-hour standard), and "moderate" nonattainment for $PM_{2.5}$ (annual and 24-hour standards). In response, the ICAPCD developed an AAQP to provide control measures to try to achieve attainment status. The AAQP was adopted in 1991. A new NAAQS for ozone was adopted by EPA in 1997 and required modified strategies to decrease higher ozone concentrations. In order to guide non-attainment areas closer to NAAQS requirements an 8-hr Ozone Air Quality Management Plan (AQMP) was approved by ICAPCD in 2009 and was accepted by the EPA in 2010. Similarly, in 2009 the County revised its SIP to address the serious non-attainment status of PM_{10}. The purpose of the SIP is to outline a plan that would provide attainment status as expeditiously as possible and require a 5 percent yearly reduction of emissions. The criteria pollutant standards are generally attained when each monitor within the region that has had no exceedances during the previous three calendar years.

3.1.5.3.2 Imperial County Air Pollution Control Management District

The ICAPCD has jurisdiction over air quality for the Project area. All development projects within the ICAPCD are required to comply with existing ICAPCD rules as they apply to each specific project. Imperial County is designated as a federal and state nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. As

such, ICAPCD has prepared an AQMP for ozone and SIPs for PM_{10} and $PM_{2.5}$ to demonstrate how the ambient air quality standards would be attained. The consistency of the Project with the SIP/AQMP is based upon the land use and growth assumptions that are incorporated into the plans. These land use and growth assumptions are typically based upon the locally adopted general plans; therefore, if a proposed project is consistent with the jurisdictional general plan, it would be consistent with the ozone and PM_{10} Plans. In preparing the AQMP/SIP, ICAPCD uses land use designations contained in the local General Plan documents to forecast, inventory, and allocate regional emissions from land use and development-related sources. Local provisions applicable to the project site include:

- **ICAPCD Rule VIII (fugitive dust)**, which sets forth rules regarding the control of fugitive dust from construction and operation activities. Reasonably Available Control Measures ("RACM") are required by Rule VIII during construction and operation activities to help reduce the amount of particulate matter. Some examples of RACMs include the application of water or chemical soil stabilizers to disturbed soils, the reduction of construction vehicle speed, the covering of haul vehicles, and some form of approved Track-Out Prevention device at access points where unpaved surface adjoins a paved surface.
- **ICAPCD Rule 424** regulates the sale of architectural coatings and limits the volatile organic compound (VOC) content in paints. While this rule does not apply directly to this Project, it does dictate the VOC content in paints and paint solvents that are available for use during construction.
- **ICAPCD Rule 310 (Operational Development Fee)** was adopted November 2007 with the purpose of providing the ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development to less than significant levels. All project proponents have the option to provide off-site mitigation, pay an operational development fee, or do a combination of both. This rule assists the ICAPCD in attaining the State and federal ambient air quality standards for PM_{10}, $PM_{2.5}$, and ozone. All project development proponents have the option to develop and implement an Alternative Emission Reduction Plan to provide mitigation of emissions associated with on-site and off-site emissions impacts. The developer has the option to provide full or partial mitigation of emissions. On each instance, the applicable fee will be reduced on a proportional rate to the reduction.

3.1.5.3.3 Imperial County General Plan

The Imperial County General Plan serves as the overall guiding policy for the county. The Conservation and Open Space Element contains official county policies on the conservation and management of

resources. Air quality is one of the resources included in the Conservation and Open Space Element. For each resource component, specific goals and objectives are identified. Air quality goals and objectives in the General Plan are:

Goal 9: The County shall actively seek to improve and maintain the quality of air in the region.

Objective 9.1 Ensure that all facilities shall comply with current federal and state requirements for attainment of air quality objectives.

Objective 9.2: Cooperate with all federal and state agencies in the effort to attain air quality objectives.

Short-term emissions resulting from Project construction would be below ICAPCD thresholds. Following construction, the Project would have low operational emissions in terms of pounds per day or tons per year. Decommissioning emissions would be similar to construction emissions and are anticipated to be below ICAPCD thresholds. Therefore, the proposed Project is consistent with this objective.

The emissions resulting from Project construction, operation and decommissioning would be below ICAPCD thresholds. Nevertheless, the Applicant would be required to comply with ICAPCD Regulation VIII, Fugitive Dust Rules. Therefore, the proposed Project is consistent with this objective.

3.1.6 Environmental Consequences

3.1.6.1 Thresholds of Significance

The thresholds of significance are provided separately for air quality versus GHG because these two impact areas are shown separately in Appendix G of the CEQA Guidelines.

3.1.6.1.1 Air Quality: California Environmental Quality Act

Based on criteria derived from Appendix G of the CEQA Guidelines, the Project would result in a significant air quality impact if the Project were to:

a) Conflict with or obstruct implementation of the applicable air quality plan;
b) Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation;
c) Expose sensitive receptors to substantial pollutant concentrations; or
d) Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people.

The project would result in a significant impact to climate change and greenhouse gases if it would result in any of the following:

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

In addition to the thresholds identified above, criteria established by the Code of Federal Regulations (CFR) and by the applicable air quality management or air pollution control district may be relied upon to make significance determinations. Each of these additional identified criteria is described below.

3.1.6.1.2 Air Quality: Federal *De Minimis* Levels

With regard to conformity with Federal standards, the CFR provides guidance to document CAA Conformity Determination requirements. 40 CFR Part 93.153(b)(2) defines *de minimis* levels (the minimum thresholds for which a conformity determination must be performed for criteria pollutants) based on the attainment status of the pollutant in the air basin. Table 3.1-3 includes the Federal *de minimis* levels for the criteria pollutants for which the Imperial County is in nonattainment (ozone, PM_{10}, and $PM_{2.5}$) for the NAAQS, based on the severity of the nonattainment. Imperial County is in attainment or designated as "unclassified" for CO, nitrogen dioxide (NO_2), lead, and sulfur dioxide (SO_2). As a result, no Federal conformity determination is required for these pollutants.

Table 3.1-3: Federal *De Minimis* Levels

Pollutant	Emissions Threshold (tons per year)
Ozone (Moderate Nonattainment)	
VOC	100
Nitrogen Oxide (NO_X)	100
$PM_{2.5}$ (Moderate Nonattainment)	
Direct $PM_{2.5}$	100
SO_2	100
NOx	100
VOC	100
Ammonia	100
PM_{10} (Serious Nonattainment)	
PM_{10}	70

Source: 40 CFR Part 93.153(b)(2)

1. Air Quality: ICAPCD Air Quality Impact Assessment Screening Thresholds (CEQA)

The ICAPCD has established significance thresholds in the 2007 ICAPCD CEQA Handbook for the preparation of Air Quality Impact Assessments (AQIA). The screening criteria within this handbook can be used to determine whether a project's total emissions would result in a significant impact as defined by CEQA. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the project's total air quality impacts are below the state and federal ambient air quality standards. Table 3.1-4 below shows the screening thresholds for construction and daily operations.

Table 3.1-4: ICAPCD Screening Thresholds for Criteria Pollutants

Pollutant		Total Emissions (Pounds Per Day)
Construction Emissions		
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)		150
Nitrogen Oxide (NOx)		100
Carbon Monoxide (CO)		550
Reactive Organic Gases (ROG)		75
Operational Emissions		
Pollutant	Tier I (Pounds per Day)	Tier II (Pounds per Day)
PM_{10} and Sulfur Oxide (SOx)	< 150	150 or greater
NOx and ROG	< 55	55 or greater
CO	< 550	550 or greater
Level of Significance:	Less Than Significant	Significant Impact
Level of Analysis:	Initial Study	Comprehensive Air Quality Analysis Report
Environmental Document:	Negative Declaration (ND)	Mitigated ND or EIR

Source: ICAPCD, 2007 in Ldn, 2016a, p. 12

The CEQA handbook further states that any proposed project with a potential to emit less than the Tier I thresholds during operations may potentially still have adverse impacts on the local air quality and would be required to develop an Initial Study to help the Lead Agency determine whether the project would have a less than significant impact. If the proposed Project's operational development fits within the Tier II classification, it is considered to have a significant impact on regional and local air quality. Therefore, Tier II projects are required to implement all standard mitigation measures as well as all feasible discretionary mitigation measures. ICAPCD also has defined standard mitigation measures for construction equipment and fugitive PM_{10} must be implemented at all construction sites. As listed in the ICAPCD CEQA handbook, the implementation of discretionary mitigation measures applies to those construction sites which are 5 acres or more for non-residential developments. Although the proposed Project will be situated on approximately three to five acres (will disturb less than 5 acres) within the fence line of the existing CSE site, in an effort to reduce PM_{10} or Fugitive Dust from ambient air, the Project would be required to develop a dust management plan consistent with Regulation VIII of ICAPCD's Rules and Regulations. Additionally, the Project would be required to not exceed the 20 percent opacity threshold under Rule 801.

If the proposed Project is large enough that operational mitigation measures simply cannot reduce pollutant levels below thresholds of significance, the ICAPCD has adopted the Operation Development Fee under Rule 310 which provides the ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development projects. Projects unmitigable through standard procedures are assessed a one-time fee for either Ozone Precursors or PM_{10} impacts, which is based upon either the square footage of the commercial development or the number of residential units. Impacts of this sort are calculated based on the assumption that the worst-case daily emissions are allowed for an entire year and then converted to an annual emission equivalent. Emissions exceeding annual thresholds would pay a fair share sum to reduce impacts to below significance.

To be consistent with the CARB, ICAPCD requires PM_{10} emitted by diesel powered construction equipment (DPM) to be analyzed. DPM can potentially increase the cancer risk for nearby residential receptors if any. Generally, sites increasing the cancer risk between one and ten in one million need to implement toxics best available control technology or impose effective emission limitations, emission control devices or control techniques to reduce the cancer risk. At no time shall the project increase the cancer risk to over 10 in one million.

2. Greenhouse Gas Emissions: California Environmental Quality Act

Based on criteria derived from Appendix G of the CEQA Guidelines, the Project would result in a significant GHG impact if the Project were to:

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

In addition to the thresholds identified above, criteria for GHG emissions and fugitive dust have been established for the Project based on guidance from the Council on Environmental Quality (CEQ) and thresholds from the ICAPCD. Each of the identified criteria are described herein.

3. Greenhouse Gas Emissions: Council on Environmental Quality

Revised draft guidance from the CEQ, dated December 18, 2014, recommends agencies consider both the potential effects of a proposed Project on climate change, as indicated by its estimated GHG emissions, and the implications of climate change for the environmental effects of a proposed Project. The guidance

also emphasizes that agency analyses should be commensurate with projected GHG emissions and climate impacts and should employ appropriate quantitative or qualitative analytical methods to provide useful information to inform the public and the decision-making process in distinguishing among alternatives and mitigations. It recommends that agencies consider 25,000 metric tons (MT) of CO_2e emissions on an annual basis as a reference point below which a quantitative analysis of GHG is not recommended unless it is easily accomplished based on available tools and data.

4. Greenhouse Gas Emissions and Fugitive Dust: County of Imperial

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the State CEQA Guidelines to provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and GCC impacts. Formal CEQA thresholds for lead agencies must always be established through a public hearing process. Imperial County has not established formal quantitative or qualitative thresholds through a public rulemaking process, but CEQA permits the lead agency to establish a project-specific threshold of significance if backed by substantial evidence, until such time as a formal threshold is approved.

3.1.6.2 Analysis Methodology

Criteria pollutant and ozone precursor emissions from Project construction are assessed using the California Emission Estimator Model (CalEEMod), Version 2016.3.1. CalEEMod is designed to quantify direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. CalEEMod allows for the input of project-specific information, such as the number of equipment, hours of operations, duration of construction activities, and selection of emission control measures. Project construction would be approximately 12 months in duration.

Construction Emissions

Construction emission calculations for the Project assume the implementation of standard dust control measures, including watering during grading. The quantity, duration, and the intensity of construction activity have an effect on the amount of construction emissions and their related pollutant concentrations that occur at any one time. As such, the emission forecasts for the Project reflect a specific set of assumptions based on the expected construction scenario. If construction is delayed or occurs over a longer time period, emissions could be reduced because the Project could have a less intensive buildout schedule (i.e., fewer daily emissions spread over a longer

time interval). A complete listing of the assumptions used in the analysis and model output is provided in the *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis* (Burns & McDonnell, 2019) found in Appendix B. The construction activities and overall size of the proposed Project footprint is so small that cancer health risks from diesel particulate matter would not be anticipated. Decommissioning emissions are assumed to be similar to construction emissions.

As indicated in Chapter 2, typical equipment will be used for site preparation (including grading), digging foundations, excavating trenches, and for conduit installation. A cement truck will also be utilized during construction activities to pour concrete foundations. All on-site equipment is expected to be Tier 2 compliant. Only a small portion of the construction access road surfaces will be unpaved; therefore, an assumption of 90 percent paved roads was used in CalEEMod. Disturbed surfaces that are not stabilized will be watered as needed for dust control. Anticipated construction equipment during the grading phase has been provided in Table 3.1-5 below. CalEEMod was used to quantify Project-generated construction emissions.

Table 3.1-5: Anticipated Construction Equipment During Grading Phase

Equipment	Power	Anticipated Usage	Quantity
Bulldozer	247 Horsepower	6 hours per day	1
Grader	187 Horsepower	6 hours per day	1
Scrapers	367 Horsepower	6 hours per day	2
Water Truck	402 Horsepower	6 hours per day	1
Self-Propelled Compactor	80 Horsepower	6 hours per day	1
Dump Truck	402 Horsepower	6 hours per day	1
Tractor/Loader/Backhoe	97 Horsepower	6 hours per day	1
Bobcat	65 Horsepower	6 hours per day	1

Source: LS Power

Operational Emissions

When operating, the Project will be unmanned, operate year-round, and available to receive or deliver energy 24 hours/day. Routine maintenance activities, including equipment testing, monitoring, and repair will occur as needed. Only authorized personnel will be permitted on-site. Facility maintenance will include the periodic maintenance of structures and BESS components. Regular maintenance performed will consist of equipment inspection and replacement and occur primarily during daylight hours. Emergency maintenance could occur at any time, as needed; however, maintenance and emergency service during daylight hours will be encouraged to maximize worker safety. Thus, there is no anticipated new trip generation for the maintenance

and operations of the Project. Power for the facility will be provided by the connection to the California Independent System Operator electric grid. In order to calculate emissions associated with operational electrical use, a Title-24 energy intensity of 2.31 kilowatt hours per 1,000 square feet per year (based on the "General Light Industry" category in CalEEMod) was used for a 5-acre site.

As detailed in the Project's traffic impact study, the existing trips to the existing CSE facility site would remain the same. As such, the Project is not anticipated to result in a net increase in vehicular trips compared to existing conditions. However, an increase of 2 vehicular trips per day was assumed as a conservative estimate. Model output data sheets are included in the *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis* (Burns & McDonnell, 2019) (Appendix B).

Greenhouse Gas Screening

CO_2e emissions generated from the Project would primarily be from construction and to a lesser extent from operations. Power for the facility will be provided by the connection to the California Independent System Operator electric grid. All GHG emissions will be calculated using CalEEMod (Version 2016.3.1) which has been approved for use within Imperial County.

3.1.6.3 Issues Scoped Out

Appendix Criterion "c" and "d" were scoped out as part of the CEQA Appendix G Environmental Checklist Form. Criterion "c" was eliminated because the proposed Project is located within the boundaries of the existing CSE facility without any sensitive receptors in close proximity. Construction equipment may create mildly objectionable odors associated with vehicle exhausts. However, this would occur on a temporary basis with no sensitive receptors being affected. Criterion "d" was eliminated because the proposed Project, as a BESS, is not anticipated to generate objectionable odors. Construction equipment may create mildly objectionable odors associated with vehicle exhausts. However, this would occur on a temporary basis with no sensitive receptors being affected. Thus, no odor impact would occur, and this issue is not discussed further in this SEIR.

3.1.7 Project Impacts

The following subsections evaluate the significance of various potential Project impacts with respect to the criteria outlined above.

Impact 3.1-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction Impacts

Construction of the proposed Project is anticipated to begin after receipt of all required approvals and will continue for approximately 12 months. The Project may be constructed in phases if two buildings are selected. The construction workers employed for the Project will consist of laborers, electricians, supervisory, support, and management personnel. The on-site assembly and construction workforce is expected to reach a maximum of 50 workers. Grading of the Project will occur over approximately three weeks. Disturbed surfaces that are not stabilized will be watered, as needed, for dust control.

As shown in Table 3.1-6, none of the construction emissions would exceed the significance threshold. It should be noted that all ICAPCD standard rules and regulations are required for all construction projects within the County. Based on this, the air quality emissions would be reduced even further from those presented in Table 3.1-6. Therefore, Project construction emissions would not exceed the ICAPCD significance threshold and impacts with regard to obstructing an air quality plan would be less than significant during Project construction.

Table 3.1-6: Expected Construction Emissions Summary (Pounds per Day)

Year	ROG	NOx	CO	PM_{10} (fugitive)	PM_{10} (exhaust)	PM_{10} Total	$PM_{2.5}$ (fugitive)	$PM_{2.5}$ (exhaust)	$PM_{2.5}$ Total
2020 (lb/day)	4.23	44.44	27.19	42.58	1.98	44.41	6.31	1.85	8.00
Significance Threshold (lb/day)	75	100	550	--	--	150	--	--	150
ICAPCD Significant Impact?	No	No	No	--	--	No	--	--	No

Source: Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis (Burns & McDonnell, 2019)

Operational Impacts

As previously mentioned, when operating, the Project will be unmanned to operate year-round, and available to receive or deliver energy 24 hours/day. Routine maintenance activities, including equipment testing, monitoring, and repair will occur as needed. Facility maintenance will include the periodic maintenance of structures and BESS components. Regular maintenance performed will consist of equipment inspection and replacement and occur primarily during daylight hours. Emergency maintenance could occur at any time, as needed; however, maintenance and

emergency service during daylight hours will be encouraged to maximize worker safety. Thus, there is no anticipated new trip generation for the maintenance and operations of the Project. However, an increase of 2 vehicular trips per day was assumed as a conservative estimate. Power for the facility will be provided by the connection to the California Independent System Operator electric grid. In order to calculate emissions associated with operational electrical use, a Title-24 energy intensity of 2.31 kilowatt hours per 1,000 square feet per year (based on the "General Light Industry" category in CalEEMod) was used for a 5-acre site. CalEEMod was used to calculate operational impacts; however, the model inputs are so small that operational emissions were calculated to be nearly zero. Full CalEEMod calculations are provided in the *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis* (Burns & McDonnell, 2019) included in Appendix B to this SEIR. Based on the operational characteristics of the Project, operational air quality impacts would be less than significant. Therefore, impacts with regard to obstructing an air quality plan would be less than significant during Project operations.

Decommissioning Impacts

Once the proposed Project has reached its anticipated lifetime of operation, the associated emissions with decommissioning are assumed to be similar to those of construction; however, the decommissioning phase would involve dismantling and removing Project components. Similar to Project construction, decommissioning air quality impacts are anticipated to be below ICAPCD thresholds. Therefore, decommissioning emissions are not expected to exceed the ICAPCD significance threshold and impacts with regard to obstructing an air quality plan or violating an air quality standard would be less than significant during Project decommissioning.

Mitigation Measures

The Project would not cause significant impacts related to air quality, fugitive dust, or GHG emissions; therefore, no mitigation is proposed.

Significance After Mitigation

Not applicable.

Impact 3.1-2: Would the project violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation?

Construction Impacts

Short-term construction emissions are anticipated from the proposed Project, as previously described. All on-site equipment is expected to be Tier 2 compliant and the emissions would not exceed ICAPCD thresholds (Table 3.1-6).

The SSAB is used as the geographic scope for the analysis of cumulative air quality impacts because of the geographic factors, which are the basis for designating the SSAB, the existence of an AQMP, SIP, and requirements set forth by the ICAPCD, which apply to both the construction and operational aspects of all cumulative projects within the SSAB. In order to analyze the cumulatively considerable impacts from this Project and other projects occurring in the region, an expanded list method (as defined under CEQA) was used to consider environmental effects associated with projects that could contribute to potential cumulative impacts. The projects listed in Table 4-1 (Chapter 4) are past, present and probable large-scale projects in the vicinity of the proposed Project and include projects known at the time of release of the NOP of the Draft EIR, as well as additional projects that have been proposed since the NOP date.

Currently, the SSAB is either in attainment or unclassified for all federal and state air pollutant standards with the exception of 8-hour ozone, PM_{10}, and $PM_{2.5}$. Imperial County is classified as a "serious" nonattainment area for PM_{10} for the NAAQS and a “moderate” nonattainment for the 8-hour ozone standard. On November 13, 2009, EPA published air quality designations for the 2006 24-hour $PM_{2.5}$ NAAQS wherein Imperial County was listed as designated “moderate” nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS. On December 14, 2012, EPA issued its final rule revising the $PM_{2.5}$ NAAQS, by lowering the primary annual $PM_{2.5}$ standard from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ to provide increased protection against health effects associated with long- and short-term fine particle exposures. The EPA retained the primary 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$. In April 2015, Imperial County was classified as a “moderate” nonattainment for the 2012 Annual $PM_{2.5}$ standard. The $PM_{2.5}$ (annual and 24-hour) nonattainment designation for Imperial County is only for the urban area within the County and it has been determined that the Project is located within the nonattainment boundaries for $PM_{2.5}$.

The AQAP for the SSAB, through the implementation of the AQMP and SIP for PM_{10}, sets forth a comprehensive program that will lead the SSAB into compliance with all federal and state air quality standards. With respect to PM_{10}, the ICAPCD implements Regulation VIII – Fugitive Dust Rules, to control these emissions and ultimately lead the basin into compliance with air standards, consistent with the AQAP. Within Regulation VIII are Rules 800 through 806, which

address construction and earthmoving activities, bulk materials, carry-out and track-out, open areas, paved and unpaved roads, and conservation management practices. Best Available Control Measures to reduce fugitive dust during construction and earthmoving activities include but are not limited to:

- Phasing of work in order to minimize disturbed surface area
- Application of water or chemical stabilizers to disturbed soils
- Construction and maintenance of wind barriers
- Use of a track-out control device or wash down system at access points to paved roads

Compliance with Regulation VIII is mandatory on all construction sites, regardless of size. However, compliance with Regulation VIII does not constitute mitigation under the reductions attributed to environmental impacts. In addition, compliance for a project includes: (1) the development of a dust control plan for the construction and operational phase; and (2) notification to the air district is required 10 days prior to the commencement of any construction activity.

The construction phase of the proposed Project may contribute to a net increase in one or more criteria pollutants as a result of point and non-point source emissions for which the region is in non-attainment under applicable federal and state ambient air quality standards. Imperial Valley is classified as non-attainment for federal and state ozone, PM_{10}, and $PM_{2.5}$ standards. Therefore, the Project's contribution to existing criteria pollutants could be cumulatively considerable without mitigation. However, levels of PM_{10} and NOx construction emissions would be below significance thresholds resulting in less than cumulatively considerable contributions to existing criteria pollutants. The proposed Project will follow all ICAPCD requirements for grading. All on-site equipment is expected to be Tier 2 compliant.

As shown in Table 4-1, many of these projects are large-scale renewable energy generation projects, where the main source of air emissions would be generated during the construction phases of these projects; however, there would also be limited operational emissions associated with O&M activities for these facilities. Additionally, several of the projects listed in Table 4-1 are already constructed. Cumulative projects listed in Table 4-1 in close proximity to the proposed Project are not anticipated to involve overlapping construction activities with the proposed Project, therefore the potential for a cumulative, short-term air quality impact as a result of construction activities is anticipated to be less than significant. In addition, all other cumulative projects are required to comply with ICAPCD Regulation VIII and would also be assumed to

implement mitigation measures to reduce their individual construction air quality emissions. In this way, each individual cumulative project would reduce construction emissions on a project-by-project basis resulting in less than cumulatively considerable contributions to existing criteria pollutants. Because the proposed Project's construction air quality emissions would fall below ICAPCD thresholds, and other cumulative projects would also mitigate construction emissions on a project- by-project basis, impacts associated with a cumulatively considerable net increase of criteria pollutant would be considered less than cumulatively considerable.

Therefore, no Project-related cumulatively considerable net increases in construction emissions would be expected.

Operational Impacts

Some air emissions associated with operation of the proposed Project will occur from electricity usage by the facilities as well as some additional worker vehicle trips for facility maintenance. Facility maintenance will include the periodic maintenance of structures and BESS components. Regular maintenance performed will consist of equipment inspection and replacement and occur primarily during daylight hours and no additional vehicle trips would be generated. Although no new employees are anticipated to be needed to operate the Project, an additional two worker vehicle trips per day were assumed to be extremely conservative. Such levels of emissions would not cause localized exceedances or contribute cumulatively to existing exceedances of the State or federal ozone, PM_{10}, or $PM_{2.5}$ standards. Therefore, the proposed Project would not result in cumulatively considerable contributions to air quality standard violations. Operation of the proposed Project, in combination with other cumulative projects identified in Table 4-1, would not result in a cumulatively considerable net increase of criteria pollutant and operational emission impact would be considered less than cumulatively considerable.

Decommissioning Impacts

Decommissioning emissions are anticipated to be similar to construction emissions and are not anticipated to exceed ICAPCD thresholds. During decommissioning, the proposed Project will follow all ICAPCD requirements for fugitive dust control. All on-site equipment is expected to be Tier 2 compliant. Therefore, no Project-related cumulatively considerable net increases in construction emissions would be expected during decommissioning. In addition, all other cumulative projects are required to comply with ICAPCD Regulation VIII and would also be assumed to implement mitigation measures to reduce their individual decommissioning air quality emissions. In this way, each individual cumulative project would reduce decommissioning

emissions on a project-by-project basis resulting in less than cumulatively considerable contributions to existing criteria pollutants.

Therefore, impacts associated with violating air quality standards or contributing to existing or project air quality violations are considered less than significant.

Mitigation Measures

The Project would not conflict with or obstruct implementation of the applicable air quality plan or ICAPCD Rules and No Impact would occur.

Significance After Mitigation

Not applicable.

Impact 3.1-3: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project will result in temporary GHG emissions during construction activities and construction-related vehicle traffic. These impacts, along with any impacts from operation and decommissioning were determined in the *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis* (Burns & McDonnell, 2019) and are summarized as follows.

Construction Impacts

Construction of the proposed Project is anticipated to continue for approximately 12 months. The Project may be constructed in phases if two buildings are selected. The construction workers employed for the Project will consist of laborers, electricians, supervisory, support, and management personnel. The on-site assembly and construction workforce is expected to reach a maximum of 50 workers. Grading is assumed to be the worst-case construction phase of the Project and will occur over approximately three weeks. For the CalEEMod analysis, the grading phase was assumed to occur over the entire 12-month period in order to calculate the annual metric tons of GHGs that will result from the construction of the Project. Disturbed surfaces that are not stabilized will be watered, as needed, for dust control. CalEEMod greenhouse gas annual outputs estimated for the Project construction period were used in this analysis. Table 3.1-7 summarizes the emissions calculated using CalEEMod in metric tons. Full CalEEMod calculations are provided in the *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis* (Burns & McDonnell, 2019) included in Appendix B to this SEIR.

Table 3.1-7: Anticipated Construction Emissions Summary MT/Year

Year	Biogenic CO_2	Non-biogenic CO_2	Total CO_2	CH_4	N_2O	CO_2e
2020	0.00	703.37	703.37	0.22	0.00	708.93

Source: Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis (Burns & McDonnell, 2019)

Based upon the expected CO_2e of the Project shown in Table 3.1-7, construction activities would not generate yearly GHG emissions in excess of the 900 metric ton per year screening threshold recommended by the California Air Pollution Control Officers Association (CAPCOA). Thus, the proposed Project would have a less than cumulatively considerable contribution to GHG emissions during construction. The proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, GHG emissions associated with Project construction are considered less than cumulatively significant.

Operational Impacts

Power for the facility will be provided by the connection to the California Independent System Operator electric grid and emissions from operational power usage were calculated using CalEEMod as described in Section 3.1.6.2. Because the proposed Project was designed to have minimal on-site oversight and utilize existing operational staff from the existing CSE facility, it is not anticipated that an increase in vehicular trips will result in relation to Project operations. Emergency maintenance could occur at any time, as needed. In this case personnel on-site would be used. If an emergency would occur after hours, a technician would drive to the site to repair the problem. In order to be extremely conservative, an increase of 2 worker trips per day was used to calculate emissions in CalEEMod.

Table 3.1-8 summarizes the operational GHG emissions calculated using CalEEMod in metric tons. Full CalEEMod calculations are provided in the *Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis* (Burns & McDonnell, 2019) included in Appendix B to this SEIR.

Table 3.1-8: Anticipated Operational Emissions Summary MT/Year

Year	Biogenic CO_2	Non-biogenic CO_2	Total CO_2	CH_4	N_2O	CO_2e
2020	70.80	373.98	444.78	4.90	0.419	579.68

Source: Le Conte Battery Storage Air Quality and Greenhouse Gas Emissions Technical Analysis (Burns & McDonnell, 2019)

Based upon the expected CO_2e of the Project shown in Table 3.1-7 and Table 3.1-8, neither construction activities nor operational activities would generate yearly GHG emissions in excess of the CAPCOA 900 metric ton per year screening threshold. Therefore, the proposed Project would have a less than cumulatively considerable contribution to GHG emissions during operations. The proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, GHG emissions associated with Project operations are considered less than cumulatively significant.

Decommissioning Impacts

Construction emissions previously discussed are assumed to be similar to those associated with decommissioning activities. Therefore, decommissioning activity emissions are not expected to exceed 900 metric tons per year. The proposed Project would have a less than cumulatively considerable contribution to GHG emissions during decommissioning activities. The proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. As such, GHG emissions associated with decommissioning of the proposed Project are considered less than cumulatively significant.

Impact 3.1-4: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As described previously, the Project would generate GHG emissions during construction and similar emissions during decommissioning. Emissions would be generated from operation of the Project from electricity use to power the facility as well as small emissions associated with vehicle use. The amount generated in any of these phases (or any overlapping phases) would not exceed 900 metric tons per year. Therefore, the Project would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing GHGs.