



Port of Hueneme 34-acre Temporary Outdoor Vehicle Storage Facility

Air Quality and Greenhouse Gas Study

prepared for

The Port of Hueneme
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1 Project Description

1.1 Introduction

This study analyzes the potential air quality and greenhouse gas (GHG) impacts of the proposed 34-acre Temporary Outdoor Vehicle Storage Facility (herein referred to as “proposed project” or “project”) located at the southeast corner of Hueneme Road and Perkins Road in the city of Oxnard in Ventura County, California. Rincon Consultants, Inc. prepared this report under contract to The Port of Hueneme for use by the City of Oxnard, in support of the environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). This analysis considers both temporary impacts that would result from project construction and long-term impacts associated with operation of the project.

1.2 Project Summary

The project requires a Special Use Permit (Planning and Zoning Permit No. 18-500-02) to allow for temporary outdoor vehicle storage of new vehicles off-loading from the Port of Hueneme (Port) for a maximum of five years on two existing vacant lots (totaling approximately 34 acres). The project is located on the southeast corner of the intersection of Hueneme Road and Perkins Road. Proposed development includes temporary structures such as a 240-square-foot (SF) guard house, portable restroom, and perimeter site lighting with a 6-foot-high fence for security purposes. In addition to landscaping, drainage improvements, and grading for a vehicle parking area on one to two inches of gravel. The proposed outdoor vehicle storage allows for a total of 4,944 vehicle spaces (180 spaces per acre). Upon expiration of the five-year permit, the office trailer, portable lighting, and gravel surface would be removed. The 6-foot-high fencing, landscaping, and drainage improvements would remain on-site.

1.2.1 Project Location

The project is located on the southeast corner of the intersection of Hueneme Road and Perkins Road in the city of Oxnard as shown in Figure 2; the property is currently owned by the Oxnard Harbor District.

1.2.2 Project Description

The proposed project would include the development of a 34-acre temporary vehicle storage facility as shown in the site plan on Figure 3 with the following buildings on site:

- One temporary 240-SF guard house office trailer for security purposes, to be removed upon expiration of Special Use Permit;
- One portable restroom for on-site personnel, to be removed upon expiration of Special Use Permit;
- Nineteen mobile, low-impact and downcast lights for security purposes;

- Two entrances/exits along Perkins Road;
- One emergency access driveway at the terminus of Saviers Road at Hueneme Road;
- Associated landscaping;
- Engineered drainage improvements; and
- Minor grading to level the existing soil and install gravel to serve as a temporary parking surface.

1.2.3 Project Operation

Once operational, the project would serve as a temporary car storage facility for use 24 hours per day, 7 days per week. However, vehicles would only be driven to and from the site between the hours of 6:00 a.m. and 4:00 p.m. Monday through Saturday.

The facility would be staffed by nine employees: two security guards, six vehicle drivers, and one shuttle van driver. Employees would arrive to the car storage facility prior to 7:00 a.m. and leave the project site no later than 4:00 p.m. daily. The two security guards each would work a 12-hour shift, and a security guard would remain on-site at all times.

A maximum of 76 vehicles would be transported to and from the Port to the project site per day for approximately 18 days each month. The vehicles would be individually driven to and from the site; transport trucks would not be used. Once the drivers have driven one car to the site from the Port, each driver would then be driven back to the Port to move another car to the facility.

Figure 1 Regional Location



★ Project Location

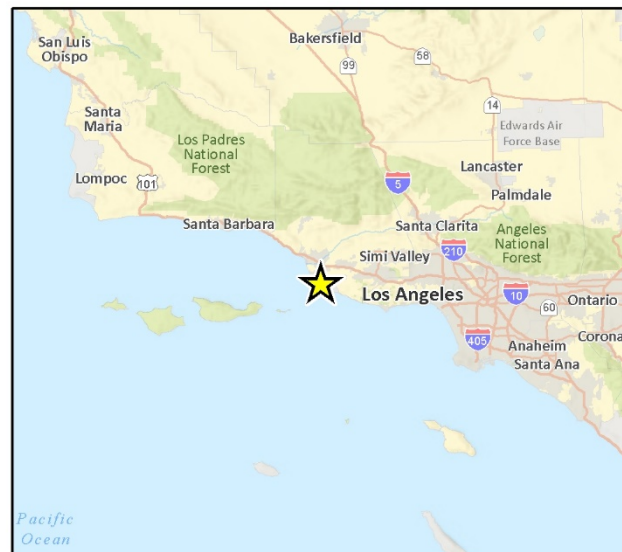
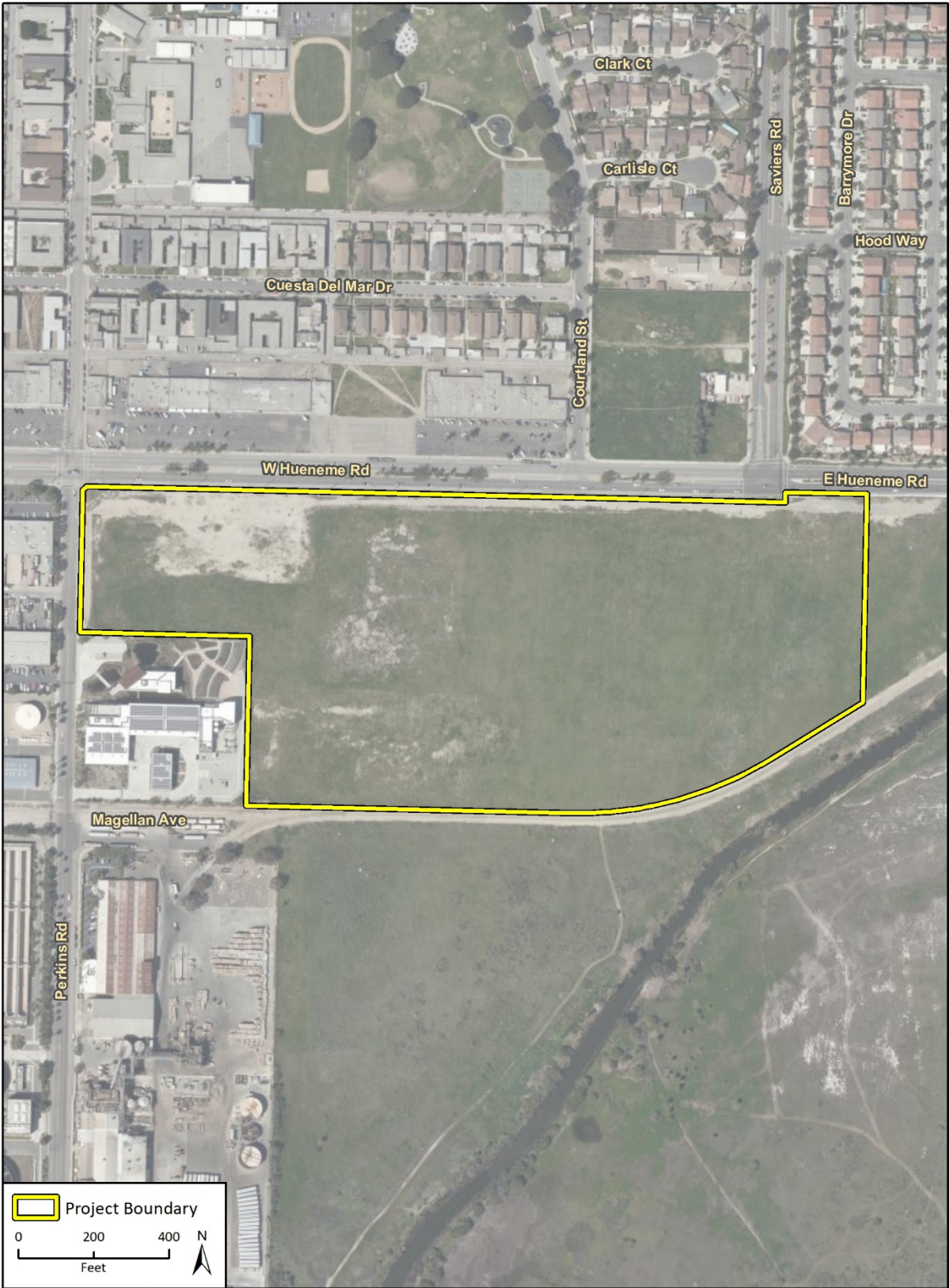


Fig 1 Regional Location March 2018 Proposal

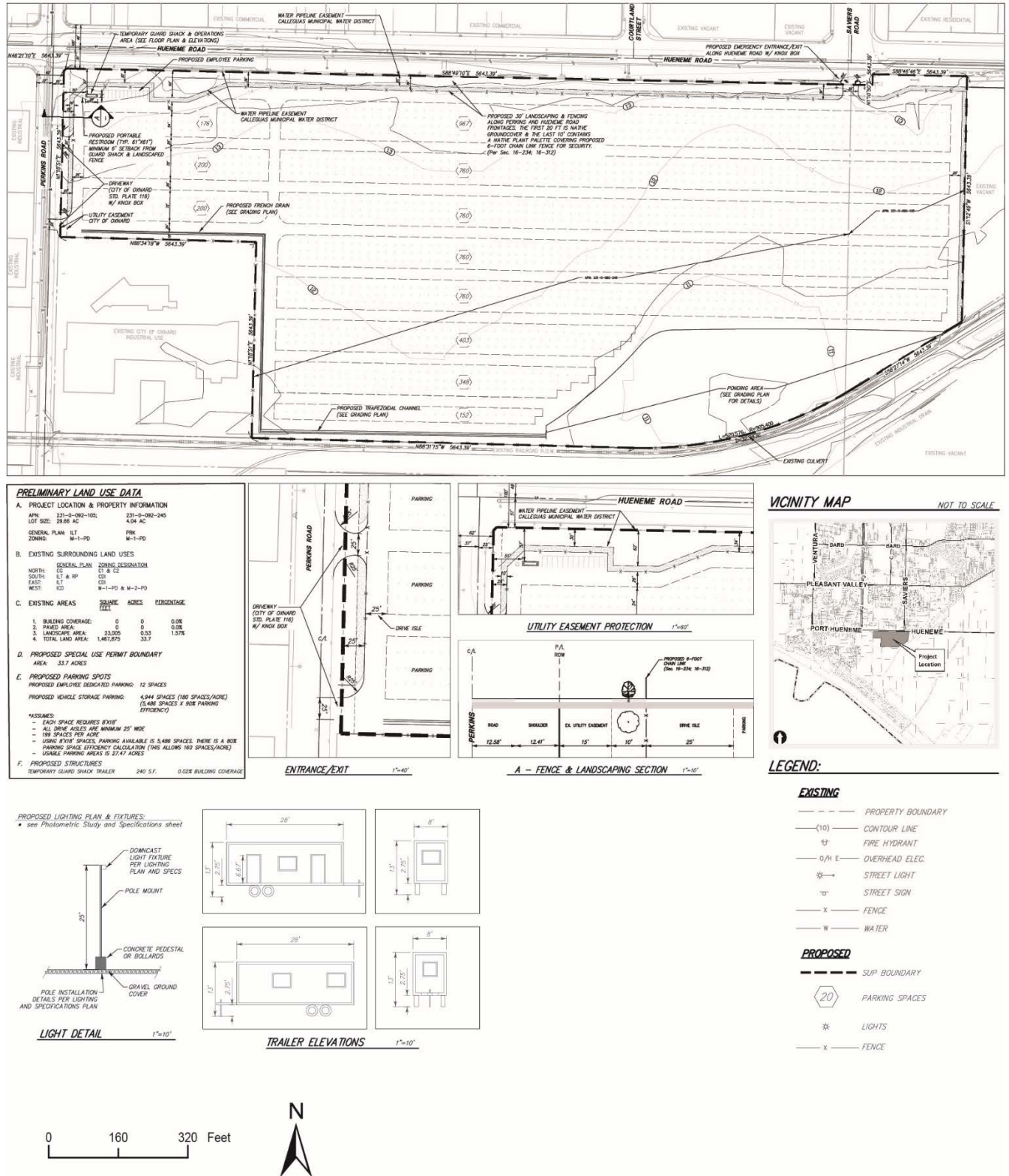
Figure 2 Project Location



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Fig. 2 Project Location

Figure 3 Site Plan



2 Air Quality

2.1 Environmental and Regulatory Setting

2.1.1 Local Climate and Meteorology

The project site is located within the South Central Coast Air Basin (SCCAB), which includes San Luis Obispo, Santa Barbara, and Ventura counties. The Ventura County Air Pollution Control District (VCAPCD) monitors and regulates the local air quality in Ventura County and manages the Air Quality Management Plan (AQMP). The Basin has moderate variability in temperatures, tempered by coastal processes. The air quality within the SCCAB is influenced by a wide range of emission sources, such as dense population centers, heavy vehicular traffic, industry, and weather.

Air pollutant emissions in the SCCAB are generated by both stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

2.1.2 Air Quality Regulation

The federal and state governments have established ambient air quality standards for the protection of public health. The United States Environmental Protection Agency (U.S. EPA) is the federal agency designated to administer air quality regulation, while the California Air Resources Board (CARB) is the state equivalent in the California Environmental Protection Agency. County-level Air Pollution Control Districts (APCDs) provide local management of air quality. CARB has established air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. CARB has established 14 air basins statewide.

The U.S. EPA has set primary National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter with an aerodynamic diameter of 10 microns or smaller (PM₁₀), particulate matter with an aerodynamic diameter of 2.5 microns or smaller (PM_{2.5}), and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards. Table 1 lists the current federal and state standards for regulated pollutants.

Under state law, the VCAPCD is required to prepare a plan for air quality improvement for pollutants for which the District is in nonattainment. Table 1 summarizes the California Ambient Air Quality Standards (CAAQS) and NAAQS for each of these pollutants. California standards are more

restrictive than federal standards for each of these pollutants, except for lead, the eight-hour average for CO, and the eight-hour average for ozone. Depending on whether the standards are met or exceeded, the local air basin is classified as being in “attainment” or “nonattainment.” As shown in Table 1, the SCCAB is currently in nonattainment for the federal and state ozone standards as well as the state PM₁₀ standard (CARB 2017, U.S. EPA 2018).

Table 1 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal		California	
		NAAQS ¹	Attainment Status	CAAQS	Attainment Status
Ozone	1-Hour	–	Nonattainment	0.09 ppm	Nonattainment
	8-Hour	0.070 ppm		0.070 ppm	
Carbon Monoxide	8-Hour	9.0 ppm	Attainment/ Unclassified	9.0 ppm	Attainment
	1-Hour	35.0 ppm		20.0 ppm	
Nitrogen Dioxide	Annual	0.053 ppm	Attainment/ Unclassified	0.030 ppm	Attainment
	1-Hour	0.100 ppm		0.18 ppm	
Sulfur Dioxide	Annual	–	Attainment/ Unclassified	–	Attainment
	24-Hour	–		0.04 ppm	
	1-Hour	0.075 ppm		0.25 ppm	
PM ₁₀	Annual	–	Attainment/ Unclassified	20 µg/m ³	Nonattainment
	24-Hour	150 µg/m ³		50 µg/m ³	
PM _{2.5}	Annual	12 µg/m ³	Attainment/ Unclassified	12 µg/m ³	Attainment
	24-Hour	35 µg/m ³		–	
Lead	30-Day Average	–	Attainment/ Unclassified	1.5 µg/m ³	Attainment
	3-Month Average	0.15 µg/m ³		–	

ppm = parts per million; µg/m³ = micrograms per cubic meter
¹ NAAQS displayed are primary standards.
 Sources: CARB 2016 and 2017, U.S. EPA 2018

The VCAPCD implements rules and regulations for emission that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of projects. Relevant rules and regulations to the project include the following:

VCAPCD Rule 50 (Opacity)

This rule sets opacity standards on the discharge from sources of air contaminants. This rule would apply during construction of the proposed project, specifically grading activities.

VCAPCD Rule 51 (Nuisance)

This rule prohibits any person from discharging air contaminants or any other material from a source that would cause injury, detriment, nuisance, or annoyance to any considerable number of

persons or the public or which endangers the comfort, health, safety, or repose to any considerable number of persons or the public. This rule would apply during construction activities. The proposed project would not consist of residential and/or open space land uses; therefore, this rule would not be a concern following buildout of the project.

VCAPCD Rule 55 (Fugitive Dust)

This rule requires fugitive dust generators to implement control measures to limit the amount of dust from vehicle track-out, earth moving, bulk material handling, and truck hauling activities.

VCAPCD Rule 55.1 (Paved Roads and Public Unpaved Roads)

This rule requires fugitive dust generators to begin the removal of visible roadway accumulation within 72 hours of any written notification from the VCAPCD. The use of blowers is expressly prohibited under any circumstances. This rule also requires controls to limit the amount of dust from any construction activity or any earthmoving activity on a public paved road.

2.1.3 Effects of Air Pollutants

Ozone

Ozone (O₃) is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_x) and reactive organic compounds (ROC)¹. NO_x is formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because O₃ requires sunlight to form, it mostly occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to O₃ include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide

Carbon monoxide is a local pollutant that is found in high concentrations only near fuel combustion equipment and other sources of CO. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. CO's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity, and impaired mental abilities.

Nitrogen Dioxide

Nitrogen dioxide is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. Nitrogen dioxide is an acute irritant. A relationship between NO₂ and chronic pulmonary

¹ Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, from an air quality perspective two groups are important: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC). SCAQMD uses the term VOC to denote organic precursors.

fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. Nitrogen dioxide absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of ozone/smog and acid rain.

Suspended Particulates

Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM₁₀ (a small particulate measuring no more than 10 microns in diameter) and PM_{2.5} (a fine particulate measuring no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with the small particulates (PM₁₀ and PM_{2.5}) can be different. Major man-made sources of PM₁₀ are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer, PM_{2.5} particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. PM_{2.5} is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engines that emit exhaust containing solid material known as diesel particulate matter (DPM; CARB 2011b). TACs are different than the criteria pollutants previously discussed because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

2.1.4 Current Air Quality

Local air quality management control and planning is provided through regional APCDs established by CARB for the 14 statewide air basins. CARB is responsible for control of mobile emission sources, while the local APCDs are responsible for control of stationary sources and enforcing regulations. Local APCDs are required to monitor air pollutant levels to ensure that air quality standards are met and, in the event they are not, to develop strategies to meet these standards. The VCAPCD is responsible for the SCCAB and operates a network of air quality monitoring stations throughout the region. The monitoring station located closest to the project site is the El Rio – Rio Mesa School #2 monitoring station, located at 545 Central Avenue in Oxnard, approximately eight miles northeast of the project site. Table 2 indicates the number of days that each of the standards has been exceeded at the El Rio – Rio Mesa School #2 monitoring station. Because the Port emits ozone and particulate

matter pollutants from its operations, the Port contributes to the exceedances of these air quality standards. However, other operations in the region, including agriculture, oil and gas extraction, mining, and industry, contribute to these exceedances as well.

Table 2 Ambient Air Quality at the El Rio – Rio Mesa School #2

Pollutant	2016	2017	2018
8 Hour Ozone (ppm), 8-Hr Average	0.071	0.071	0.062
Number of Days of State exceedances (>0.070 ppm)	1	1	0
Number of days of Federal exceedances (>0.070 ppm)	1	1	0
Ozone (ppm), Worst Hour	0.084	0.084	0.072
Number of days of State exceedances (>0.09 ppm)	0	0	0
Number of days of Federal exceedances (>0.112 ppm)	0	0	0
Nitrogen Dioxide (ppb) - Worst Hour	33.0	36.0	49.0
Number of days of State exceedances (>0.18 ppm)	0	0	0
Number of days of Federal exceedances (>0.100 ppm)	0	0	0
Particulate Matter <10 microns, $\mu\text{g}/\text{m}^3$, Worst 24 Hours ¹	101.6	286.0	208.4
Number of days of State exceedances (>50 $\mu\text{g}/\text{m}^3$)	14	29	21
Number of days of Federal exceedances (>150 $\mu\text{g}/\text{m}^3$)	0	1	2
Particulate Matter <2.5 microns, $\mu\text{g}/\text{m}^3$, Worst 24 Hours ²	22.7	81.3 ¹	41.2
Number of days of Federal exceedances (>35 $\mu\text{g}/\text{m}^3$)	0	4	1

¹ The four exceedances of the federal $\text{PM}_{2.5}$ standard occurred during the Thomas Fire on December 8, 13, 15, and 16.

Source: CARB 2018b

2.1.5 Air Quality Management Plan

The primary objective of the 2016 Ventura County AQMP is to provide continuous air pollutant emission reductions over time, with the goal of attaining the federal and state standards. The VCAPCD's most recent AQMP was adopted in 2017 and establishes a comprehensive air pollution control program leading to the attainment of state and federal air quality standards in the SCCAB, which is in non-attainment for ozone (O_3) and particulate matter (PM_{10}). The AQMP also addresses the requirements set forth in the state and federal Clean Air Acts. As discussed in more detail below, the project's air quality emissions would be below the VCAPCD significance thresholds and mitigation measures have been identified where appropriate consistent with VCAPCD recommendations (VCAPCD 2017).

As stated in the Ventura County Air Quality Assessment Guidelines, project consistency with the AQMP can be determined by comparing the actual population growth in the county with the projected growth rates used in the AQMP. The projected growth rate in population is used as an indicator of future emissions from population-related emission categories in the AQMP. These emission estimates are used, in part, to project the date by which Ventura County will attain the federal ozone standard. Therefore, a demonstration of consistency with the population forecasts

used in the most recently adopted AQMP should be used for assessing project consistency with the AQMP.

2.1.6 Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore schools, hospitals, and residences.

The closest sensitive receptors are multi-family residences located approximately 360 feet north of the project site boundary. There is a school and hospital within 0.75 mile of the project site. The nearest school is the Art Haycox Elementary School located approximately 780 feet north of the project site at 5400 Perkins Road and the nearest hospital, Community Memorial Health System Hospital, located approximately 0.74 feet west of the project site.

2.2 Impact Analysis

2.2.1 Methodology

The project's construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod uses project-specific information, including the project's land uses, size, and location to estimate a project's construction emissions. Construction emissions modeled include emissions generated by construction equipment used on-site and emissions generated by vehicle trips associated with construction, such as worker and vendor trips. Emissions were modeled using the applicant-provided construction schedule and equipment list.

Construction would involve grubbing, site preparation, grading, building installation and fencing, gravel installation, and landscaping. Project construction would generate diesel emissions and dust. Based on applicant-provided information, the project would require use of backhoes, dozers, dumpers/tenders, generators, front end loaders, sweepers, and a water truck during the grubbing and site preparation phase. In the grading phase, the project would use a compactor, generators, graders, sweepers/scrubbers and a water truck to level the existing land to prepare for the gravel installation. Approximately 5,536 cubic yards of aggregate bases and soil materials would be imported with approximately 55 haul truck trips (in and out) occurring daily assuming 10-cubic-yard truck capacities used over a 10-day hauling period for a total of 554 truck hauling trips. In addition, as detailed in Section 1, *Project Description*, it was assumed that project construction would comply with all applicable regulatory standards, including VCAPCD Rule 55 (Fugitive Dust).

Upon completion of project construction, the project would serve the existing need for temporary vehicle storage as the vehicles that would be parked on the project site are already stored elsewhere on the Port of Hueneme property. As the vehicles and drivers would need to drive to the project site from the Port and be shuttled back to the Port, this would increase air pollutant emissions. Therefore, operational air pollutants were quantified. To provide a conservative scenario, the drivers would be driven back to the Port via a shuttle, which is assumed to be either a car or van. Once the new cars are ready to be moved from the storage facility to an off-site location, drivers would drive the cars off the site and would be shuttled back to the project site to move additional cars. With a maximum of 76 vehicles transportation from the Port each day, it was

assumed that there were 76 trips from the Port to the project site, 76 shuttle trips back to the Port, and 18 employee trips per day for a total of 170 trips.

2.2.2 Significance Thresholds

State CEQA Guidelines Appendix G Checklist

To determine whether a project would result in a significant impact to air quality, Appendix G of the *CEQA Guidelines* requires consideration of whether a project would:

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

Regional Significance Thresholds

The VCAPCD provides numerical thresholds to analyze the significance of a project's construction and operational emissions to regional air quality. These thresholds are designed such that a project consistent with the thresholds would not have an individually or cumulatively significant impact to the SCCAB's air quality. The thresholds are detailed in Table 3 below.

Table 3 VCAPCD Regional Significance Thresholds

Construction Thresholds	Operational Thresholds
25 pounds per day of ROC	25 pounds per day of ROC
25 pounds per day of NO _x	25 pounds per day of NO _x

Source: VCAPCD 2017

2.3 Air Quality Impacts

CEQA Appendix G Air Quality Threshold 1

Would the project conflict with or obstruct implementation of the applicable air quality plan?

According to the VCAPCD Guidelines, a project may be inconsistent with the applicable air quality plan if it would cause the existing population to exceed forecasts contained in the most recently adopted AQMP. The VCAPCD adopted the 2016 Ventura County AQMP to demonstrate a strategy for, and reasonable progress toward, attainment of the federal 8-hour ozone standard. The 2016 Ventura County AQMP relies on the Southern California Association of Governments' 2016 Regional Transportation Plan/Sustainable Communities Strategy forecasts of regional population growth in its projections for managing Ventura County's air quality.

The proposed project would include the temporary storage of cars, for a maximum of five years. The project does not include the removal or addition of residences and would not generate new employment opportunities in the region. Therefore, the project would not directly or indirectly generate population, housing, or employment growth. As a result, the project would not exceed the Southern California Association of Governments' projected growth forecasts, which underlie the

emissions forecasts in the 2016 AQMP. Therefore, the project would not generate population or employment growth beyond AQMP forecasts, and the project would be consistent with the AQMP. Impacts would be less than significant.

CEQA Appendix G Air Quality Threshold 2

Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?

2.3.1 Construction Impacts

Table 4 summarizes maximum daily emissions of pollutants associated with construction of the proposed project during construction in year 2022. As shown below, ROC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions would not exceed VCAPCD regional thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Impacts would be less than significant.

Table 4 Estimated Maximum Daily Construction Emissions

Construction Year	Maximum Emissions ¹ (lbs/day)					
	ROC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Maximum Daily Emissions	9.4	24.9	16.5	< 0.1	4.3	2.6
VCAPCD Thresholds	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	No	No	No	No

See Appendix A for CalEEMod output results.

2.3.2 Operational Impacts

Upon completion of project construction, the project would result in new daily trips to and from the Port of Hueneme. These new trips would be a source of air pollutant emissions. Table 5 summarizes maximum daily emissions of pollutants associated with the operation of the proposed project in operation year 2022. The proposed operational use of the project would not exceed the VCAPCD thresholds for ROC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Impacts would be less than significant.

Table 5 Estimated Maximum Daily Operational Emissions

Construction Year	Maximum Emissions ¹ (lbs/day)					
	ROC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Total Maximum Daily Emissions	0.9	0.4	0.8	<0.1	<0.1	<0.1
VCAPCD Thresholds	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	No	No	No	No
See Appendix A for CalEEMod output results.						

CEQA Appendix G Air Quality Threshold 3

Would the project expose sensitive receptors to substantial pollutant concentrations?

2.3.3 Local Carbon Monoxide Hotspot Impact

A carbon monoxide (CO) hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and state eight-hour standard of 9.0 ppm (CARB 2016).

In Ventura County, ambient air monitoring for CO stopped in 2004, with the approval of the U.S. Environmental Protection Agency – Region 9, because CO background concentrations in El Rio, Simi Valley, and Ojai were much lower than the CAAQS (highest recorded CO background concentration in Ventura County was in Simi Valley at 6.2 ppm for 1–hr, 1.6 ppm for 8–hour (VCAPCD 2017).

Therefore, no CO hotspots are expected to occur in the southern Oxnard area where the proposed project would be located, and additional CO modeling analysis is not warranted. In addition, with over 80% of the CO in urban areas emitted by motor vehicles, and with stricter, cleaner emission standards to the mobile fleet, CO ambient concentrations should remain at or lower than the most recent CO monitoring data available for Ventura County.

The project is based on mobile sources, and for clarification purposes, the model run projected CO emissions to 16.5 lbs/day during the construction phase and 0.5 lbs/day during the operational phase. While Ventura County does not have established significance thresholds for CO, neighboring air districts, which have more prevalent air quality issues, have CO significance thresholds of 100–550 lbs per day CO (San Joaquin Valley APCD, South Coast AQMD, San Diego APCD). As a comparison, the project’s estimated CO emissions are minimal.

Traffic-congested roadways and intersections have the potential to generate elevated localized carbon monoxide levels (i.e., carbon monoxide hotspots). In general, carbon monoxide hotspots occur in areas with poor circulation or areas with heavy traffic. Existing carbon monoxide levels in Ventura County have been historically low enough that VCAPCD monitoring stations throughout the county ceased monitoring ambient carbon monoxide concentrations in March and July of 2004 (VCAPCD 2003). The proposed project would result in a minor increase in vehicle traffic along the project alignment as a result of worker vehicle trips, delivery of heavy-duty equipment and materials, and haul trips during project construction. Because the project site is not located in an

area with poor circulation or heavy traffic, project-related traffic would not cause or contribute to potential temporary carbon monoxide hotspots. Therefore, the project would not expose sensitive receptors to substantial concentrations of carbon monoxide, and impacts would be less than significant.

2.3.4 Fugitive Dust Emissions

During construction, fugitive dust generators from the construction equipment from the grubbing, site preparation and grading activities would require compliance with VCAPCD Rules 55, 55.1, and 55.2 which would reduce impacts by implementing control measures during earthmoving activities to reduce and limit the amount of dust on the project site. During the operational phase, the gravel installation is suitable in reducing fugitive dust emissions were the parking lot left as-is. In addition, vehicles would be driving very slow due to liability issues and keeping the product undamaged (new cars). In any case, the project would be subject to standard conditions of project approval to minimize emissions and to maximize dust suppression onsite. Therefore, the project would not expose nearby sensitive receptors to substantial concentrations of fugitive dust emissions, and impacts would be less than significant.

2.3.5 Toxic Air Contaminants (TACs)

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). The proposed project would not be classified as a potential source of TACs as the project would serve as a temporary vehicle storage parking lot for vehicles coming from Port Hueneme. Therefore, the project would not expose nearby sensitive receptors to substantial concentrations of TACs, and impacts would be less than significant.

CEQA Appendix G Air Quality Threshold 4

Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

2.3.6 Objectionable Odor Impact

A project-related significant adverse effect could occur if construction or operation of the proposed project would result in generation of odors that would be perceptible in adjacent sensitive areas. The project does not include any of the land uses identified by the VCAPCD as being associated with odors (such as wastewater treatment facilities, sanitary landfills, transfer stations, composting facilities, asphalt batch plants, painting and coating operations, fiberglass operations, food processing facilities, feed lots/dairies, petroleum facilities, chemical manufacturing operations and facilities, and rendering plants). The project does include diesel vehicles during construction; however, these impacts would be temporary as the use of diesel vehicles would cease once the construction period ends in 2022. The project would be consistent with all applicable rules and regulations governing construction equipment and processes. The project site is surrounded by similar and other industrial uses identified by the VCAPCD. The project would not create objectionable odors affecting a substantial number of people during construction or long-term operation. Therefore, the project would have no impact related to the creation of objectionable odors or generate objectionable odors affecting a substantial number of people. No impact would occur.

2.4 Cumulative Impacts

It is expected there would be little to no dust generated from the project during operation and construction impacts are subject to VCAPCD Rules 55, 55.1, and 55.2, these impacts would also be temporary as construction activities would end in 2022. The gravel is suitable in reducing fugitive dust emissions as compared to current conditions on the site. In addition, vehicles will be driving very slow due to liability issues and keeping the product (new cars) undamaged. In addition, the project would be subject to standard conditions of project approval including the VCAPCD rules mentioned above and City of Oxnard Stormwater Pollution Prevention Plan (SWPPP) to minimize emissions and to maximize dust suppress on site. Therefore, the project's contribution to cumulative regional long-term air quality impacts would not be cumulatively considerable.

3 Greenhouse Gases

3.1 Environmental and Regulatory Setting

3.1.1 Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The United Nations Intergovernmental Panel on Climate Change (IPCC) expressed a high degree of confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2014).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and natural processes, such as oceanic evaporation, largely determine its atmospheric concentrations.

GHGs are emitted by natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are usually by-products of fossil fuel combustion, and CH₄ results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (United States Environmental Protection Agency [U.S. EPA] 2020). Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO₂e), and is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis (IPCC 2015).

The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33° Celsius (°C) cooler (World Meteorological Organization 2020). However, emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

3.1.2 Greenhouse Gas Emissions Inventory

Global Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT or gigatonne) CO₂e in 2010 (IPCC 2014). Carbon dioxide emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, carbon dioxide was the most abundant, accounting for 76 percent of total 2010 emissions. Methane emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases accounted for 6 percent and 2 percent respectively (IPCC 2014).

Federal Emissions Inventory

Total United States (U.S.) GHG emissions were 6,676.6 MMT of CO₂e in 2018. Since 1990, total U.S. emissions have increased by an average annual rate of 0.13 percent for a total increase of 3.7 percent since 1990. Emissions increased by 2.9 percent from 2017 to 2018. The increase from 2017 to 2018 was primarily driven by increased fossil fuel combustion as a result of multiple factors, including increased energy usage from greater heating and cooling needs due to a colder winter and hotter summer in 2018 as compared to 2017. In 2018, the transportation and industrial end-use sectors accounted for 36 percent and 26 percent, respectively, of GHG emissions while, the residential and commercial end-use sectors accounted for 20 percent and 17 percent of GHG emissions, respectively, with electricity emissions distributed among the various sectors (U.S. EPA 2020).

California Emissions Inventory

Based on the California Air Resource Board's (CARB) California Greenhouse Gas Inventory for 2000-2017, California produced 424.1 MMT of CO₂e in 2017. The major source of GHG emissions in California is transportation, contributing 41 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 24 percent of the state's GHG emissions, and electric power accounts for approximately 15 percent (CARB 2019). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. In 2016, the State of California achieved its 2020 GHG emission reduction goals as emissions fell below 431 MMT of CO₂e (CARB 2019). The annual 2030 statewide target emissions level is 260 MMT of CO₂e (CARB 2017b).

3.1.3 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) from 2015 to 2017 was approximately 1.0°C (1.8°F) higher than the average GMST over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2019). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations jointly indicate that LSAT and sea surface temperatures have increased. Due to past and current activities,

anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014 and 2018).

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snow pack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). While there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally-specific climate change case studies (State of California 2018). A summary follows of some of the potential effects that could be experienced in California as a result of climate change.

Air Quality

Higher temperatures, which are conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. As temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have been occurring at higher elevations in the Sierra Nevada Mountains (State of California 2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality would worsen. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thereby ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. For example, many southern California cities have experienced their lowest recorded annual precipitation twice in the past decade; however, in a span of only two years, Los Angeles experienced both its driest and wettest years on record (California Department of Water Resources [DWR] 2008). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. However, the average early spring snowpack in the western United States, including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 5.9 inches along the central and southern California coast (State of California 2018). The Sierra snowpack provides the majority of California's water supply by accumulating snow during the state's wet winters and releasing it slowly during the state's dry springs and summers. A warmer climate is predicted to reduce the fraction of

precipitation falling as snow and result in less snowfall at lower elevations, thereby reducing the total snowpack (DWR 2008; State of California 2018). The State of California projects that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change has the potential to induce substantial sea level rise in the coming century (State of California 2018a). The rising sea level increases the likelihood and risk of flooding. The rate of increase of global mean sea levels over the 2001-2010 decade, as observed by satellites, ocean buoys and land gauges, was approximately 3.2 mm per year, which is double the observed 20th century trend of 1.6 mm per year (World Meteorological Organization [WMO] 2013). As a result, global mean sea levels averaged over the last decade were about 8 inches higher than those of 1880 (WMO 2013). Sea levels are rising faster now than in the previous two millennia and the rise is expected to accelerate, even with robust GHG emission control measures. The most recent IPCC report predicts a mean sea-level rise of 10 to 37 inches by 2100 (IPCC 2018). A rise in sea levels could completely erode 31 to 67 percent of southern California beaches, result in flooding of approximately 370 miles of coastal highways during 100-year storm events, jeopardize California's water supply due to salt water intrusion, and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018a). In addition, increased CO₂ emissions can cause oceans to acidify due to the carbonic acid it forms. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.

Agriculture

California has a \$50 billion annual agricultural industry that produces over a third of the country's vegetables and two-thirds of the country's fruits and nuts (California Department of Food and Agriculture 2018). Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent; water demand could increase as hotter conditions lead to the loss of soil moisture; crop-yield could be threatened by water-induced stress and extreme heat waves; and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). In addition, temperature increases could change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems and Wildlife

Climate change and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increasing concentrations of GHGs are likely to accelerate the rate of climate change. Scientists project that the annual average maximum daily temperatures in California could rise by 4.4 to 5.8°F in the next 50 years and by 5.6 to 8.8°F in the next century (State of California 2018). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals related to (1) timing of ecological events; (2) geographic distribution and range; (3) species' composition and the incidence of nonnative species within communities; and (4) ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

3.1.4 Regulatory Setting

The following regulations address both climate change and GHG emissions.

Safer Affordable Fuel-Efficient Vehicles Rule

On April 30, 2020, the U.S. EPA and the National Highway Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO₂ emissions standards for model years 2021-2026 passenger cars and trucks such that the standards increase by approximately 1.5 percent each year through model year 2026 as compared to the 2012 standards which required an approximately five percent annual increase (National Highway Traffic Safety Administration 2020). To account for the effects of the Part Two Rule, CARB released off-model adjustment factors on June 26, 2020 to adjust GHG emissions outputs from the EMFAC model (CARB 2020a).

California Regulations

CARB is responsible for the coordination and oversight of state and local air pollution control programs in California. California has numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the U.S. EPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the Low Emissions Vehicles (LEV), Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," which was signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO₂e. The Scoping Plan was approved by CARB on December 11, 2008 and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan ("2014 Scoping Plan update"). The 2014 Scoping Plan update defined CARB's climate change priorities for the next five

years and set the groundwork to reach post-2020 statewide goals. The update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State's longer-term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use (CARB 2014).

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Natural Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

Senate Bill 375

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. In addition, SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPOs) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. Southern California Association of Government's (SCAG) was assigned targets of an 8 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements.

Cap-and-Trade Program

The California Cap-and-Trade Program, launched in 2013, is a market-based regulation designed to reduce GHG emissions from multiple sources. The Cap-and-Trade Program sets a firm limit or cap on GHGs and minimize the compliance costs of achieving AB 32 goals. The objective of the program is that trading creates incentives to reduce GHGs below allowable levels through investments in clean technologies. Also, with a carbon market, a price on carbon is established for GHGs. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources, such as refineries and power plants (deemed "covered entities"). "Covered entities" subject to the Cap-and-Trade Program are sources that emit more than 25,000 MT of CO₂e per year. Triggering of the 25,000 MT of CO₂e per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 and 2030 statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on a cumulative basis. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative.

The Cap-and-Trade Program covers approximately 85 percent of California's GHG emissions (Center for Climate and Energy Solutions 2019). The Cap-and-Trade Program covers the GHG emissions

associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered as large sources in the Program's first compliance period.² Furthermore, the Cap-and-Trade Program also covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). The current Cap-and-Trade Program will end on December 31, 2020. AB 398 was enacted in 2017 to extend and clarify the role of the Cap-and-Trade Program from January 1, 2021 through December 21, 2030.

Senate Bill 32

On September 8, 2016, the governor signed SB 32 into law, extending AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 100 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2014 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with statewide per capita goals of six metric tons (MT) CO₂e by 2030 and two MT CO₂e by 2050 (CARB 2017b). As stated in the 2017 Scoping Plan, these goals may be appropriate thresholds for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 44 percent by 2024, 60 percent by 2030, and 100 percent by 2045.

Executive Order B-55-18

On September 10, 2018, the governor issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

Executive Order N-79-20

On September 23, 2020, the governor issued Executive Order N-79-20, tasking CARB with ensuring that all new passenger cars and trucks sold in the state shall be zero emission vehicles by 2035. The

² While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015.

EO further dictates that all medium- and heavy-duty trucks sold in the state shall be zero emission vehicles by 2045.

California Environmental Quality Act

Pursuant to the requirements of SB 97, the Resources Agency has adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted CEQA Guidelines provide general 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 GHGs and climate change impacts. To date, a variety of air districts have adopted quantitative significance thresholds for GHGs.

Regional and Local Regulations

The Port of Hueneme, City of Oxnard, and County of Ventura do not currently have adopted Climate Action Plans. The City of Oxnard adopted its Energy Action Plan (EAP) in April 2013, as required by the 2030 General Plan. The EAP builds upon existing energy conservation efforts and identifies energy conservation and production programs consistent with 2030 General Plan goals and policies, utility company programs, and State and Federal legislation and initiatives. The EAP focuses primarily on electricity efficiency and conservation, but also includes natural gas and renewable energy production strategies. The City proposes a reduction target of 10 percent below the 2005 baseline for electricity and natural gas consumption provided by Southern California Edison and SoCal Gas Company.

In addition, the VCAPCD 2016 AQMD provides strategies to reduce motor vehicle emissions as Transportation Control Measures (TCMs) that would have the effect of reducing GHG emissions. These TCMs meet milestones and help demonstrate attainment of the NAAQS. TCMs are based on SCAG's adopted 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and Federal Transportation Improvement Program (FTIP). These TCMs along with the 2016 RTP/SCS supports the State's required GHG emission reduction targets for the region that is set by CARB.

3.2 Impact Analysis

3.2.1 Methodology

Calculations of CO₂, CH₄, and N₂O emissions are provided to identify the magnitude and nature of the proposed project's potential GHG emissions and environmental effects. The analysis focuses on CO₂, CH₄, and N₂O because these make up 98.9 percent of all GHG emissions by volume (IPCC 2007) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF₆, were also considered for the analysis. However, since fluorinated gases are primarily associated with industrial processes, and the proposed project involves an equipment storage yard, the quantity of fluorinated gases would not be significant. Emissions of all GHGs are converted into their equivalent GWP in MT of CO₂e. Small amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would also be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (CAPCOA 2008).

The project's construction and operational related GHG emissions were estimated using CalEEMod version 2016.3.2 in accordance with the methodologies outlined in Section 2.2.1, *Methodology*, in

Section 2, *Air Quality*. Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, “more study is needed to make this assessment or to develop separate thresholds for construction activity” (CAPCOA 2008). In accordance with South Coast Air Quality Management District’s (SCAQMD’s) recommendation, GHG emissions from construction of the proposed project were amortized over a 30-year period and added to annual operational emissions to determine the project’s total annual GHG emissions (SCAQMD 2008).

The project would be a temporary storage parking lot from operational year 2022 to 2027. The GHG operational emissions modeling were estimated using the anticipated closing year of the parking lot in 2027.

3.2.2 Significance Thresholds

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

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

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project’s contribution towards an impact would be cumulatively considerable. “Cumulatively considerable” means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

The City and VCAPCD have not yet developed a qualified GHG reduction plan. In light of a specific GHG threshold or qualified GHG reduction plan recommended or adopted by the City or VCAPCD, it is appropriate to refer to guidance from other agencies when discussing GHG emissions. The City of Oxnard generally refers to the SCAQMD methodology for GHG Significance analysis. In guidance provided by the SCAQMD’s GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD considered a tiered approach to determine the significance of residential and commercial projects. The draft tiered approach is outlined in meeting minutes dated September 29, 2010 (SCAQMD 2010):

- **Tier 1.** If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- **Tier 2.** Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.

- **Tier 3.** Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 10,000 MT of CO₂e per year for industrial projects and 3,000 MT of CO₂e per year for residential and commercial projects
- **Tier 4.** Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT of CO₂e per year for land use projects.

The project would not be statutory or categorically exempt, and therefore Tier 1 does not apply. As previously stated, the City does not have a local, qualified GHG reduction plan for the project to tier off, and Tier 2 would not apply. Service population is defined as employees plus residents; due to the nature of the project as a temporary vehicle storage facility, it would have a small number of employees and a service population threshold would not provide an accurate depiction of project GHG emission impacts. The City has recently used the SCAQMD 3,000 MT of CO₂e per year threshold to analyze project GHG emissions under its jurisdiction (Rincon 2019a and 2019b). Pursuant to CEQA Guidelines Section 15064, this threshold is considered appropriate by the City to determine GHG emission impacts for the project. The project would be in support of commercial automobile uses, and therefore, the applicable threshold for the proposed project would be a bright line threshold of 3,000 MT of CO₂e per year for commercial projects in accordance with Tier 3.

3.3 Project Impacts

CEQA Appendix G Greenhouse Gas Threshold 1

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

Project construction would generate GHG emissions from the operation of heavy machinery, dirt importing and truck hauling for the proposed project. Construction of the proposed project would generate an estimated 193 MT of CO₂e. Although construction activity is addressed in this analysis, the California Air Pollution Control Officers Association does not discuss whether any threshold approaches adequately address impacts from temporary construction activity. As stated in the *CEQA and Climate Change* white paper, “more study is needed to make this assessment or to develop separate thresholds for construction activity” (CAPCOA 2008). Nevertheless, air districts such as the SCAQMD (2008) have recommended that GHG emissions from construction be amortized over 30 years and added to operational GHG emissions to determine the overall impact of a proposed project. Amortized over a 30-year period, construction of the project would generate an estimated 6.4 MT of CO₂e per year (see Appendix A for CalEEMod output results).

As mentioned above under *Methodology*, upon completion of project construction, the project would include operational sources of GHG emissions such as daily trips to and from the Port of Hueneme in addition to energy for use of the guard tower trailer and water for landscaping. Operational emission would result in 29.4 MT CO₂e of per year (see Appendix A for CalEEMod output results). When combined with amortized construction emissions, the project would result in approximately 35.8 MT of CO₂e per year, which would not exceed the project-specific threshold of 3,000 MT CO₂e per year threshold. Therefore, the proposed project would not result in a significant increase in GHG emissions, and impacts would be less than significant.

CEQA Appendix G Greenhouse Gas Threshold 2

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

The City of Oxnard EAP, adopted in April 2013, is the City's guiding document for reducing energy consumption and reducing renewable energy production within City Government and the community relative to planned growth. The purpose of the document is to establish a net energy consumption reduction target and to identify and scope programs to achieve the target over time. It builds upon existing energy conservation efforts and identifies energy conservation and reduction programs consistent with 2030 General Plan goals and policies, utility company programs, and State and Federal legislation and initiatives. As a temporary outdoor storage facility for automobiles, the project would have minor energy and water use and would not result in substantial energy usage that would conflict with the goals of the EAP. Therefore, no impact would occur.

3.4 Cumulative Impacts

Analyses of GHGs are cumulative in nature because they affect the cumulative accumulation of GHGs in the atmosphere. Projects falling below the impact thresholds discussed above would have a less than significant impact, both individually and cumulatively. Therefore, the project's contribution to significant cumulative impacts related to GHG emissions is not cumulatively considerable.

4 Conclusions

All air quality impacts related to project construction and operation would be less than significant. The project would not generate population or employment growth; therefore, the project would be consistent with the AQMP. Project construction and operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment (i.e., ozone, PM₁₀, and PM_{2.5}) and would not expose sensitive receptors to substantial pollutant concentrations from CO hotspots, TACs or fugitive dust. In addition, the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The project would generate approximately 35.8 MT of CO₂e per year, which would not exceed the project-specific threshold of 3,000 MT of CO₂e per year. Therefore, the project would not result in significant GHG emissions.

In addition, the project would be consistent with the City of Oxnard EAP and VCAPCD TCM strategies based on SCAG's adopted 2016 RTP/SCS and FTIP for reducing GHG emissions. Therefore, the project would not conflict with any applicable plans, policies, or regulations for the purpose of reducing GHG emissions.

5 References

- California Air Pollution Control Officers Association (CAPCOA). 2008. CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA). January 2008.
- California Air Resources Board (CARB). 2011a. Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider the “LEV III” Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards and Test Procedures and to the On-Board Diagnostic System Requirements for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles, and to the Evaporative Emission Requirements for Heavy-Duty Vehicles. December 7, 2011.
<http://www.arb.ca.gov/regact/2012/leviighg2012/levisor.pdf> (accessed October 2020).
- _____. 2011b. Health Effects of Diesel Exhaust. <http://www.arb.ca.gov/research/diesel/diesel-health.htm> (accessed March 2020).
- _____. 2014. AB 32 Scoping Plan Website. Last modified: June 2014.
<http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm> (accessed October 2020).
- _____. 2016. “Ambient Air Quality Standards.” May 4, 2016.
<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf> (accessed October 2020).
- _____. 2017a. “Area Designations Maps/State and National.” Last modified: 2017.
<https://www.arb.ca.gov/desig/adm/adm.htm> (accessed October 2020).
- _____. 2017b. California’s 2017 Climate Change Scoping Plan. December 14, 2017.
https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf (accessed October 2020).
- _____. 2018a. “California Greenhouse Gas Emission Inventory – 2018 Edition. Last modified: July 11, 2018. <https://www.arb.ca.gov/cc/inventory/data/data.htm> (accessed October 2020).
- _____. 2018b. Top 4 Summary: Select Pollutant, Years, & Area.
<https://www.arb.ca.gov/adam/topfour/topfour1.php> (accessed October 2020).
- _____. 2019. “California Greenhouse Gas Emission Inventory – 2019 Edition. Last modified: August 12, 2019. <https://ww3.arb.ca.gov/cc/inventory/data/data.htm> (accessed July 2020).
- _____. 2020a. EMFAC Off-Model Adjustment Factors for Carbon Dioxide (CO₂) Emissions to Account for the SAFE Vehicles Rule Part One and the Final SAFE Rule. June 26, 2020.
https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf?utm_medium=email&utm_source=govdelivery (accessed July 2020).
- California Climate Change Center (CCCC). 2006. Climate Scenarios for California.
- California Department of Food and Agriculture. 2018. “California Agricultural Production Statistics.” Last modified: August 30, 2018. <https://www.cdfa.ca.gov/statistics/> (accessed August 2019).
- California Department of Water Resources. 2008. Managing an Uncertain Future: Climate Change Adaption Strategies for California’s Water. October 2008.
<http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf> (accessed October 2020).

- California Environmental Protection Agency (CalEPA). 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March 2006.
- California Natural Resources Agency. 2009. 2009 California Climate Adaptation Strategy. March 2009. Available at: http://resources.ca.gov/docs/climate/Statewide_Adaptation_Strategy.pdf (accessed October 2020).
- Center for Climate and Energy Solutions. 2019. "California Cap and Trade." <http://www.c2es.org/content/california-cap-and-trade/> (accessed October 2020).
- Intergovernmental Panel on Climate Change (IPCC). 2007. Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.
- _____. 2014. Climate Change 2014: Mitigation of Climate Change. Summary for Policymakers - Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- _____. 2015. Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.
- _____. 2018. Summary for Policymakers. Global warming of 1.5°C - An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. <https://www.ipcc.ch/sr15/> (accessed October 2020).
- National Oceanic and Atmospheric Administration. 2020. "Global Climate Report for Annual 2019." State of the Climate. January 2020. <https://www.ncdc.noaa.gov/sotc/global/201813> (accessed October 2020).
- National Highway Traffic Safety Administration. 2020. Part Two of the SAFE Vehicles Rule. <https://www.govinfo.gov/content/pkg/FR-2020-07-08/pdf/2020-14642.pdf>. (accessed October 2020).
- Parmesan, C. 2006. Ecological and Evolutionary Responses to Recent Climate Change. August 2006.
- Rincon Consultants, Inc. 2019a. City of Oxnard, Rio Urbana Project. Draft Initial Study-Mitigated Negative Declaration. July. Available at: <https://www.oxnard.org/wp-content/uploads/2019/07/Rio-Urbana-Draft-CEQA-IS-MND.pdf>
- _____. 2019b. City of Oxnard, Avalon Homes Project. Draft Environmental Impact Report. December. Available at: <https://www.oxnard.org/wp-content/uploads/2019/12/AvalonHomesEIRDecember2019.pdf>
- South Coast Air Quality Management District (SCAQMD). 2008. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. December 5, 2008. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2) (accessed October 2020).

- _____. 2010. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. September 28, 2010. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2) (accessed October 2020).
- State of California. 2018. California's Fourth Climate Change Assessment Statewide Summary Report. August 27, 2018. <http://www.climateassessment.ca.gov/state/> (accessed October 2020).
- United States Environmental Protection Agency (U.S. EPA). 2018. "Nonattainment Areas for Criteria Pollutants (Green Book)." Last modified: October 31, 2018. <https://www.epa.gov/green-book>, (accessed October 2020).
- _____. 2019 Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. U. S. EPA #430-R-19-001. April 2019. <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf> (accessed October 2020).
- _____. 2020. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018. U. S. EPA #430-R-20-002. April 2020. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018> (accessed October 2020).
- Ventura County Air Pollution Control District (VCAPCD). 2003. Ventura County Air Quality Assessment Guidelines. <http://www.vcapcd.org/pubs/Planning/VCAQGuidelines.pdf>. (accessed October 2020).
- _____. 2006. Air Quality Assessment for CEQA. http://www.vcapcd.org/environmental-review.htm#What_about_greenhouse_gases_and_CEQA_
- _____. 2017. 2016 Ventura County Air Quality Management Plan. February 14, 2017. <http://www.vcapcd.org/pubs/Planning/AQMP/2016/Final/Final-2016-Ventura-County-AQMP.pdf>
- World Meteorological Organization (WMO). 2013. A summary of current and climate change findings and figures: a WMO information note. March 2013. https://library.wmo.int/opac/index.php?lvl=notice_display&id=15892#.Wt9-Z8gvzIU (accessed October 2020).
- _____. 2020. "Greenhouse Gases." <https://public.wmo.int/en/our-mandate/focus-areas/environment/greenhouse%20gases> (accessed October 2020).

Appendix A

CalEEMod Modeling Outputs