

5. Environmental Analysis

5.6 GREENHOUSE GAS EMISSIONS

This section of the EIR evaluates the potential for implementation of the Proposed Project to cumulatively contribute to GHG emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis. GHG emissions modeling for the Proposed Project in this section is based on the following:

- *Air Quality and Greenhouse Gas Emissions Data*, prepared by PlaceWorks, July 2016 and updated in August 2017.

This data is included in Appendix F of this EIR.

Transportation-sector GHG emissions are based on trip generation and VMT provided by Fehr & Peers (see Appendix M). Water and wastewater demand rates are based on the Water Supply Assessment prepared for the Proposed Project (see Appendix N of this EIR).

5.6.1 Environmental Setting

5.6.1.1 REGULATORY SETTING

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. This section describes the federal, state, and local regulations applicable to GHG emissions.

Federal

The EPA announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 US Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emission reduction requirements, but allowed the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (EPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding covers emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the Proposed Project's GHG emissions inventory because they constitute the majority of GHG emissions, and per SCAQMD guidance are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons of carbon dioxide equivalent (MTCO₂e) or more per year are to submit

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

an annual report. CO₂e is the standard unit to measure the amount of GHGs in terms of the amount of CO₂ that would cause the same amount of warming.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers were required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025, which will require a fleet average of 54.5 mpg in 2025.

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to former President Obama's 2013 Climate Action Plan, the EPA was directed to also develop regulations for existing stationary sources. However, the EPA is reviewing the Clean Power Plan under President Trump's Energy Independence Executive Order.

State

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Assembly Bill 32, and Senate Bill 375.

Executive Order S-03-05

Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

California Air Resources Board 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be approximately 596 million metric tons (MMT) of CO₂e in

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO₂e (471 million tons) for the state (CARB 2008). In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MTCO₂e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated global warming potentials (GWPs) in the Fourth Assessment Report, and the 427 MMTCO₂e 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 MMTCO₂e (CARB 2014b). GWP is the metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of CO₂ over a given period of time, and CO₂ has a GWP of 1.

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014b). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014b).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On January 20, 2017, CARB released the *Draft 2017 Climate Change Scoping Plan Update* with adoption hearings planned for April of 2017. The *Draft 2017 Climate Change Scoping Plan Update* includes the potential regulations and programs, including strategies consistent with AB 197 requirements to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO_{2e} for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017a).

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZE buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes NZE technology, and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

- 20 percent reduction in GHG emissions from refineries by 2030¹.
- Development of a Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.

In addition to the statewide strategies listed above, the *2017 Climate Change Scoping Plan* also identified local governments as essential partners in achieving the State’s long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 MTCO_{2e} or less per capita by 2030 and 2 MTCO_{2e} or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State’s long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a climate action plan or other plan to reduce GHG emissions is appropriate (CARB 2017a).

The Scoping Plan scenario is set against what is called the business-as-usual yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit. It includes the existing renewables requirements, advanced clean cars, the “10 percent” LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. As shown in Table 5.6-1, *2017 Climate Change Scoping Plan Emissions Reductions Gap to Achieve the 2030 GHG Target*, the known commitments are expected to result in emissions that are 50 MMTCO_{2e} above the target in 2030. In order to make up the gap, a new post-2020 Cap-and-Trade Program and refinery measure are key components of the 2017 Scoping Plan.

Table 5.6-1 2017 Climate Change Scoping Plan Emissions Reductions Gap to Achieve the 2030 GHG Target

Modeling Scenario	2030 GHG Emissions MMTCO _{2e}
Reference Scenario (Business-as-Usual)	392.4
With Known Commitments	310
2030 GHG Target	360

Source: CARB 2017a.

Table 5.6-2, *2017 Climate Change Scoping Plan Emissions Change by Sector to Achieve the 2030 Target*, provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

¹ The plan includes policies to require direct GHG reductions at some of the State’s largest stationary sources and mobile sources in accordance with AB 197. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources.

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

Table 5.6-2 2017 Climate Change Scoping Plan Emissions Change by Sector to Achieve the 2030 Target

Scoping Plan Sector	1990 MMTCO _{2e}	2030 Proposed Plan Ranges MMTCO _{2e}	% Change from 1990
Agricultural	26	24-25	-4% to -8%
Residential and Commercial	44	38-40	-9% to -14%
Electric Power	108	42-62	-43% to -61%
High GWP	3	8-11	167% to 267%
Industrial	98	77-87	-11% to -21%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-27% to -32%
Net Sink ¹	-7	TBD	TBD
Sub Total	431	300-345	-20% to -30%
Cap-and-Trade Program	NA	40-85	NA
Total	431	260	-40%

Source: CARB 2017a.

Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.

Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also establishes targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the *Final Proposed Short-Lived Climate Pollutant Strategy*, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes (CARB 2017b). According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017b). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. SCAQMD is one of the air districts that require air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these broilers by over 80 percent (CARB 2017b). Additionally, SCAQMD Rule 445, Wood-Burning Devices, limits installation of new fireplaces in the SoCAB.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). SCAG is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). SB 375 requires CARB to update the targets no later than every eight years.

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 MMTCO_{2e} of reductions by 2020 and 15 MMTCO_{2e} of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

CARB is currently in the process of updating the next round of targets and methodology to comply with the requirement for updates every eight years. Considerations for the next round of targets include whether to change the nature or magnitude of the emissions reduction targets for each of the MPOs, and whether the target-setting methodology should account for advances in technologies that reduce emissions. Such changes in methodology would permit cities to account for emissions reductions from advances in cleaner fuels and vehicles and not only from land use and transportation planning strategies. In March 2017, CARB held a series of workshops regarding the SB 375 target update process, and updated targets adopted in 2017 are intended to become effective in 2018. Sustainable communities strategies adopted in 2018 would be subject to the updated targets (CARB 2015).

SCAG's 2016 RTP/SCS

SB 375 requires the MPOs to prepare a sustainable communities strategy in their regional transportation plan. For the SCAG region, the 2016-2040 RTP/SCS was adopted on April 7, 2016, as the update to the 2012 RTP/SCS (SCAG 2016). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger per capita targets set in 2010 by CARB. It is projected that VMT per capita in the region for year 2040 would be reduced by 7.4 percent with implementation of the 2016-2040 RTP/SCS compared to a no-plan year 2040 scenario. Under the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2 percent increase in reduction compared to the 2012 RTP/SCS projection. Overall, the SCS is meant to

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

provide growth strategies that will achieve the aforementioned regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around High Quality Transit Areas and Livable Corridors, and creating Neighborhood Mobility Areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016). However, the SCS does not require that local general plans, specific plans, or zoning be consistent with SCS; instead, it provides incentives to governments and developers for consistency.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold within the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078 and 107, X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard established under SB 1078 (Sher) and SB 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expands the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SBX1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

Senate Bill 350

SB 350 (de Leon), was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of ZE vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the CEC adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017.

The 2016 Standards continues to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively (CEC 2015a). Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features. While the 2016 standards do not achieve zero net energy, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. CALGreen (24 CCR, Part 11) was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

air contaminants.² The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2016. The 2016 Standards became effective on January 1, 2017.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business as usual,” they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California’s Integrated Waste Management Act of 1989 (AB 939, Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2013 CALGreen also requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014 Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

² The green building standards became mandatory in the 2010 edition of the code.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to SB 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

County

Los Angeles County Energy and Environmental Program

In 2006, the County Board of Supervisors adopted an Energy and Environmental Program (EEP) for the development and enhancement of energy conservation and environmental programs for County departments. These programs contribute to the County’s efforts to reduce community-wide GHGs and GHGs from County operations. The EEP consists of the following programs:

- **Energy and Water Efficiency:** The EEP establishes a reduction target of 20 percent by 2015 and implements conservation monitoring practices and water and energy shortage awareness programs for County buildings and departments.
- **Green Building Construction and Operations:** The County’s Green Building Program currently consists of the Green Building, Low-Impact Development, and Drought Tolerant Ordinances.
- **Environmental Stewardship:** The Environmental Stewardship Program measures and reduces the County’s environmental footprint, including the amount of GHGs produced through direct and indirect County operations, and develops climate change-related policies.
- **Public Outreach and Education:** The Public Outreach and Education Program utilizes the County’s communication and outreach channels to share utility industry information, facilitate implementation of subsidy and assistance programs, and spread energy conservation practices throughout the region.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

Community Climate Action Plan

The County released the *Final Unincorporated Los Angeles County Community Climate Action Plan 2020* (CCAP) in August of 2015, which was adopted as part of the General Plan Update on October 6, 2015. The plan addresses the County’s local GHG reduction goals for 2020 pursuant to AB 32. The purpose of the CCAP is to: 1) establish a baseline emissions inventory and reduction needed to meet County goals; 2) identify specific actions that will measurably reduce GHG emissions consistent with AB 32; 3) establish a framework for implementing state and local level actions; and 4) provide a mechanism for ongoing tracking and updates to the CCAP.

As part of the CCAP, the County has identified a GHG reduction target of at least 11 percent below 2010 levels by 2020. The CCAP identifies 26 local actions to reduce community-wide GHG reductions in 2020 to reach the GHG reduction goal for the unincorporated areas of the County (unincorporated areas). As identified in the CCAP, the community and statewide actions would reduce GHG emissions in the unincorporated areas by more than 1.95 MMTCO_{2e} (see Table 5.6-3, *Unincorporated Areas CCAP GHG Reductions*).

Table 5.6-3 Unincorporated Areas CCAP GHG Reductions

Reductions	GHG Emissions (MTCO _{2e})
LA County 2020 forecast	9,055,469
Target for 2020—at least 11% below 2010 levels	7,104,621
Total ₁ : Reductions needed to reach interim target (2020 forecast minus 2020 target)	1,950,849
Total reductions from state level actions	1,571,658
Total reductions from local programs	384,045
Total ₂ : GHG reductions achieved by the CCAP (state plus local reductions)	1,955,570
Exceeds reduction target by (Total ₂ minus Total ₁)	4,722

Source: Los Angeles, County of 2015. Based on the GWPs in IPCC’s Fourth Assessment Report.

5.6.1.2 EXISTING CONDITIONS

The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).^{3,4} The major GHGs are briefly described below.

³ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.
⁴ Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste.
- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.
 - **Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. As they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down the ozone layer. These gases are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
 - **Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF₄] and perfluoroethane [C₂F₆]) were introduced as alternatives, along with HFCs, to ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high GWP.
 - **Sulfur Hexafluoride (SF₆)** is a colorless gas soluble in alcohol and ether, and slightly soluble in water. SF₆ is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
 - **Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although they are ozone-depleting substances, they are less potent than CFCs. They have been introduced as temporary replacements for CFCs.
 - **Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in

reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017b). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise GWP of black carbon. Guidance for CEQA documents does not yet include black carbon.

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; EPA 2017).

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. High GWP gases have a stronger greenhouse effect than others. The GWP of GHG emissions are shown in Table 5.6-4, *GHG Emissions and Their Relative Global Warming Potential Compared to CO₂*. The GWP is used to convert GHGs to CO₂ equivalence to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Second Assessment Report GWP values for CH₄, a project that generates 10 MT of CH₄ would be equivalent to 210 MT of CO₂.

Table 5.6-4 GHG Emissions and Their Relative Global Warming Potential Compared to CO₂

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO ₂ ¹	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ¹
Carbon Dioxide (CO ₂)	50 to 200	50 to 200	1	1
Methane ² (CH ₄)	12 (±3)	12	21	25
Nitrous Oxide (N ₂ O)	120	114	310	298
Hydrofluorocarbons:	—	—	—	—
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF ₄	50,000	50,000	6,500	7,390
Perfluoroethane: C ₂ F ₆	10,000	10,000	9,200	12,200
Perfluorobutane: C ₄ F ₁₀	2,600	NA	7,000	8,860
Perfluoro-2- methylpentane: C ₆ F ₁₄	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF ₆)	3,200	NA	23,900	22,800

Source: IPCC 1995; IPCC 2007.

Note: The IPCC has published updated GWP values in its Fifth Assessment Report (2013) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂ (radiative forcing is the difference of energy from sunlight received by the earth and radiated back into space). However, GWP values identified in the Second Assessment Report are still used by SCAQMD to maintain consistency in GHG emissions modeling. In addition, the 2008 Scoping Plan was based on the GWP values in the Second Assessment Report.

¹ Based on 100-year time horizon of the GWP of the air pollutant relative to CO₂.

² The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

California's Greenhouse Gas Sources and Relative Contribution

California is the tenth largest GHG emitter in the world and the second largest emitter of GHG emissions in the United States, surpassed only by Texas (CARB 2014a). However, California also has over 12 million more

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

people than Texas. Because of more stringent air emission regulations, in 2014, California ranked third lowest in energy-related carbon emissions per capita (EIA 2014).

CARB's last update to the statewide GHG emissions inventory that used the Second Assessment Report GWPs was in 2012 for year 2009 emissions.⁵ In 2009, California produced 457 MMTCO_{2e} GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the state's total emissions. Electricity generation (in-state and imported) is the second largest source, producing 22.7 percent. Industrial activities are California's third largest source of GHG emissions at 17.8 percent. (CARB 2011).

In 2016, the statewide GHG emissions inventory was updated for 2000 to 2014 emissions using the GWPs in IPCC's Fourth Assessment Report. Based on these GWPs, California produced 442 MMTCO_{2e} GHG emissions in 2014. California's transportation sector remains the single largest generator of GHG emissions, producing 36.1 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent and electric power generation made up 20.0 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (8.7 percent), agriculture (8.2 percent), high GWP GHGs (3.9 percent), and recycling and waste (2.0 percent) (CARB 2016).

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities. The amount of CO₂ in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historic trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events.

⁵ Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under AB 32 (2006).

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Areas affected by drought increases.
- Intense tropical cyclone activity increases.
- Increased incidence of extremely high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada. By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1–8.6°F, depending on emissions levels (CCCC 2012).

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; 4) a shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments led by the Secretary of the California Environmental Protection Agency—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.6-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are considered unavoidable. Global climate change risks to California are shown in Table 5.6-5, *Summary of GHG Emissions Risks to California*, and include public health impacts, water resources impacts, agriculture impacts, coastal sea level impacts, forest and biological resources impacts, and energy impacts.

5. Environmental Analysis
 GREENHOUSE GAS EMISSIONS

Table 5.6-5 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Poor air quality made worse Higher temperatures increase ground level ozone levels.
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006; CEC 2009; CNRA 2014; and CCCC 2012.

Specific climate change impacts that could affect the Proposed Project include:

- **Health Impacts.** Many of the gravest threats to public health in California stem from the increase of extreme conditions, principally more frequent, more intense, and longer heat waves. Particular concern centers on the increasing tendency for multiple hot days in succession, and heat waves occurring simultaneously in several regions throughout the state. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California (CCCC 2012).
- **Increased Energy Demand.** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the state would drive up the demand for cooling in the increasingly hot and longer summer season and decrease demand for heating in the cooler

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process at higher temperatures) and hydropower plants (lower reservoir levels) (California Climate Change Center 2012). On average, the Los Angeles region is expected to warm 4 to 5 degrees over land by midcentury. For the unincorporated areas of the County in particular, the University of California, Los Angeles' high emissions modeling scenario predicts that mountain and inland areas may warm up to or greater than 4.5 degrees and coastal and valley/urban areas up to 3.7 to 3.9 degrees and a nearly 12-fold increase in the number of heat days, compared to a 1.5- to 2-fold increase for the inland/valley areas (Los Angeles 2015). Transmission of electricity would also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity needs to be produced to make up for the loss in capacity and the growing demand (CCCC 2012).

- **Water Resource Impacts.** By late century, all projections show drying, and half of the projections suggest 30-year average precipitation will decline by more than 10 percent below the historical average. This drying trend is caused by an apparent decline in the frequency of rain and snowfall. Even in projections with relatively small or no declines in precipitation, central and southern parts of the state can be expected to be drier from the warming effects alone—the spring snowpack would melt sooner, and the moisture contained in soils would evaporate during long dry summer months (CCCC 2012). Changes in snowfall could exacerbate drought-like conditions, reducing water supplies and water security for all end users throughout the County (Los Angeles 2015).
- **Wildfire Risks.** Earlier snowmelt, higher temperatures, and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk would be influenced by potential climate-related changes in vegetation and ignition potential from lightning. Human activities would continue to be the biggest factor in ignition risk. The number of large fires statewide are estimated to increase by 58 to 128 percent above historical levels by 2085. Under the same emissions scenario, estimated burned area would increase by 57 to 169 percent, depending on location (CCCC 2012).

Existing Emissions

The Project Site currently generates GHG emissions from operation of the existing MCJ and administrative facilities, including on-road transportation emissions (workers, inmate-patient transfer buses, visitors, and deliveries), energy sources (electricity and natural gas), area sources (e.g., consumer products, aerosols, landscape fuel), indirect emissions associated with water use and wastewater generation, indirect emissions associated with solid waste disposal, and stationary equipment (periodic testing of emergency generators). An estimate of the existing emissions generated at the Project Site are included in Table 5.6-6, *Existing MCJ Maximum Daily GHG Emissions*.

**5. Environmental Analysis
 GREENHOUSE GAS EMISSIONS**

Table 5.6-6 Existing MCJ Maximum Daily GHG Emissions

Source	GHG Emissions MTCO _{2e} /Year	
	Existing	Percent of Total
Area ¹	<1	<1%
Energy	19,896	30%
Transportation	38,963	58%
Stationary	17	<1%
Waste	6,926	10%
Water	1,581	2%
Total All Sectors	67,383	100%

Source: CalEEMod Version 2016.3.1.

¹ Emissions exclude permitted sources of emissions, such as those generated at the Central Plant. These emissions are under the jurisdiction of SCAQMD. However, for purposes of this analysis, two emergency generators are assumed.

5.6.1.3 SPRING STREET PARKING STRUCTURE SITE (OPTION 1)

The SSPS Site is currently a paved parking lot with security lighting. This site does not generate GHG emissions.

5.6.1.4 VIGNES LOT (OPTION 2)

The Vignes Lot is currently vacant with lighting and does not generate GHG emissions.

5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, the Proposed Project would have a significant effect on the environment with respect to GHG emissions if it would:

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

SCAQMD has adopted a significance threshold of 10,000 MTCO_{2e} per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group. Based on the last Working Group meeting held in September 2010 (Meeting No. 15), the SCAQMD Working Group identified a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency (SCAQMD 2010):

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

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD has identified a “bright-line” screening-level threshold of 3,000 MTCO_{2e} annually for all land use types or the following land-use-specific thresholds: 1,400 MTCO_{2e} for commercial projects, 3,500 MTCO_{2e} for residential projects, or 3,000 MTCO_{2e} for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore less than cumulatively considerable, impact on GHG emissions:

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

The SCAQMD Working Group has identified an efficiency target for projects that exceed the bright-line threshold: a 2020 efficiency target of 4.8 MTCO_{2e} per year per service population (MTCO_{2e}/year/SP) for project-level analyses and 6.6 MTCO_{2e}/year/SP for plan-level analyses (e.g., general plans) for year 2020. Service population is defined as the sum of the residential and employment population of a project. The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.⁶

The SCAQMD Working Group identified that because construction activities would result in a “one-time” net increase in GHG emissions, construction activities should be amortized into the operational phase GHG emissions inventory based on the service life of a building. For buildings, in general, it is reasonable to look at a 30-year time frame, as this is a typical interval before a new building requires the first major renovation. The Proposed Project's temporary emissions associated with the shuttle are also amortized based on the service life of the shuttle, consistent with the SCAQMD Working Group methodology on how to treat “one-time” GHG emissions.

The net increase in Proposed Project emissions are compared to the SCAQMD's bright-line threshold. If the Proposed Project exceeds the bright-line target, total GHG emissions would be compared to the SCAQMD efficiency target for buildout year 2027.

⁶ SCAQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

5.6.3 Plans, Programs, and Policies

5.6.3.1 REGULATORY REQUIREMENTS

- RR GHG-1 New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2016 Building and Energy Efficiency Standards are effective starting on January 1, 2017. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve net zero energy for residential buildings by 2020 and non-residential buildings by 2030. The County's green building standards which implement and exceed CALGreen are identified County Code, Title 31. The County has adopted the Voluntary Tier 1 standards for non-residential construction greater than or equal to 25,000 square feet (CALGreen Section 301.3.1, Buildings greater than or equal to 25,000 square feet).⁷
- RR GHG-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new non-residential buildings, or meet local bicycle parking ordinances, whichever is stricter (CALGreen Sections 5.106.4.1, 14.106.4.1, and 5.106.4.1.2). The Proposed Project would be required to provide anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for five percent of new visitor motorized vehicle parking spaces being added. For employee, long-term secured bicycle parking is required to be provided for five percent of the tenant-occupied (i.e., staff) motorized vehicle parking spaces being added. The Proposed Project is also required to designate parking for low-emitting, fuel-efficient, and carpool/vanpool spaces identified in CALGreen. As the County's Green Building Ordinance requires compliance with the Tier 1 voluntary measures in section A5.601.2.4, the Proposed Project will be required to provide low-emitting, fuel-efficient, and carpool/vanpool spaces for 10 percent of the total parking capacity.
- RR GHG-3 The Proposed Project will include an Employee Commute Reduction Plan (ECRP), commonly known as the Rideshare Plan, in accordance with County Code Chapter 5.9, Vehicle Trip Reduction. The ECRP will specify the measures to be implemented at the CCTF to achieve the target average vehicle ridership performance goal for employee vehicles subject to the Ordinance.
- RR GHG-4 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) and Water Efficient Landscape Ordinance (WELO) requirements integrated into the County Code to increase water efficiency and reduce urban per capita water demand. The County's green building standards are identified County Code, Title 31. The Proposed Project will comply with Section 301.3.1, Nonresidential Buildings greater than or

⁷ With the exception that high-rise non-residential construction would be subject to the mandatory (Table A4.106.5.1(3)), rather than the Tier 1 voluntary, measures for solar reflectance in Table A5.106.11.2.2.

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

equal to 25,000 square feet, which requires implementation of the Tier 1 voluntary standards (30 percent reduction) for indoor potable water use and 60 percent of Reference evapotranspiration (ET_o) for outdoor potable water use; Section 5.106.4, Low Impact Development; and Section 4.106.5, Landscape Design, which requires use of non-invasive drought tolerant plants. Title 31 requires project designs and practices that will result in the conservation of water and energy resources, such as measures for building commissioning, clean vehicle parking, and solid waste recycling.

- RR GHG-5 Construction contractors within Los Angeles County are required to adhere to the County's Construction & Demolition (C&D) Debris Recycling and Reuse Ordinance, Chapter 20.87 of the County Code. The County's C&D requirements are consistent with CALGreen requirements and require construction contractors to divert a minimum of 50 percent of the construction generated waste from area landfills, depending on the type and intensity of construction. For the Proposed Project, construction contractors would be required to divert a minimum of 65 percent of the C&D debris by weight and submit a Recycling and Reuse Plan to the County's Construction & Demolition Unit for review and approval. Additionally, according to the County's Green Building Ordinance, which requires implementation of CALGreen Tier 1 voluntary standards, the Proposed Project building materials will include a minimum of 10 percent of recycled content based on estimated cost.
- RR GHG-6 Shuttle bus and vendor vehicle use will be conducted in compliance with 13 California Code of Regulations (CCR) Section 2485, which requires that non-essential idling for all diesel-fueled commercial motor vehicles must not exceed 5 consecutive minutes at any location.
- RR GHG-7 Construction activities will be conducted in compliance with 13 California Code of Regulations (CCR) Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- RR GHG-8 Executive Order B-18-12 called for new or renovated state buildings larger than 10,000 square feet to achieve the U.S. Green Building Council's Leadership in Energy Efficiency and Design (LEED) "Silver" certification. In 2007, the County identified a similar policy for County buildings and in 2016, adopted the LEED "Gold" standard under its Energy and Environmental Policy. The Proposed Project would be constructed to achieve the LEED Gold certification or equivalent.

5.6.4 Environmental Impacts

Methodology

This GHG evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG impacts are likely to occur in conjunction with the Proposed Project. SCAQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating environmental impacts and which were used in this analysis. Modeling of GHG was conducted using CalEEMod, version 2016.3.1 (see Appendix F). Life cycle (consumption-based) emissions are not

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

included in this analysis because not enough information is available for the Proposed Project, and therefore life cycle GHG emissions would be speculative.⁸ Industrial sources of emissions that require a permit from SCAQMD (permitted sources) are not included in the emissions forecast because they have separate emission reduction requirements.

Because GHG impacts are cumulative, the impact assessment has been conducted for Option 1 (the Project Site and the SSPS Site combined) and Option 2 (the Project Site and the Vignes Lot combined). Separate GHG impact analyses for the Project Site and each of the off-site parking options was not conducted.

Construction Impacts

Spring Street Parking Structure Site (Option 1)

Construction emissions modeling is based on the construction schedule and phasing provided by the County for the Project Site and the SSPS Site. The Proposed Project would be constructed in several phases: SSPS Site, Phase 1 Project Site, and Phase 2 Project Site. Because preliminary information on the type and number of equipment is not available at this preliminary planning-state, the construction equipment mix was generated based on the CalEEMod defaults, which are based on construction surveys conducted by SCAQMD. Where necessary, the CalEEMod defaults were increased, as noted in Appendix F, to reflect the Project Site conditions. Modeling also included up to 600,728 square feet of building demolition in Phase 1 and 1,191,641 square feet of building demolition in Phase 2. The SSPS Site would require soil export associated with the subterranean parking level, which is estimated at 26,781 cubic yards during Phase 1. Modeling assumes the potential need for soil export associated with the potential remediation of soils at the Project Site. However, based on the latest hazardous soils remediation plan, no soil export is required; therefore, the modeling is conservative. Based on preliminary estimates provided by AECOM, modeling included up to 90,000 cubic yards of soil export during Phase 2 construction.

Vignes Lot (Option 2)

For the purpose of this analysis, it is assumed that the phasing of development and construction phasing and activities for Option 2 would generally be consistent with Option 1. However, under Option 2, the proposed Vignes Lot would be developed in lieu of the SSPS Site. It is assumed that it would require the same construction processes as the new onsite parking lot proposed under Option 1. However, for the purpose of this analysis, it is assumed up to 28,976 cubic yards of soil associated with subterranean parking levels would be exported from the Vignes Lot. In addition, the proposed onsite parking structure planned for development during Phase 2 under Option 1 would be eliminated. While building layout and design may change under Option 2, for the purpose of this analysis, it is assumed that overall total new building square

⁸ Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions, found that life-cycle analyses were not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the Proposed Project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

footage would remain unchanged from Option 1. Additionally, the analysis for Option 2 also assumes 90,000 cubic yards of soil export during Phase 2 construction.

Operational Impacts

For long-term operational impacts, air quality modeling is based on the following factors. Unless otherwise noted, the assumptions described are applicable to both Options 1 and 2.

- **On-Road Transportation.** On-road transportation sources are based on trip generation rates and VMT provided by Fehr & Peers (see Appendix M). Under the Option 1 scenario, during construction at the Project Site, visitors and employees would be transported from the new SSPS Site to the Project Site by means of a shuttle. These temporary emissions were modeled using CARB's EMFAC2014 emission rates for medium-duty gasoline trucks in the Los Angeles portion of the SoCAB.
- **Energy Use.** Electricity and natural gas use is based on data provided by the County Internal Services Department (ISD)/Energy Management Division for existing metered accounts at the existing MCJ facility and SSPS Site (for electricity only). Heating and cooling at the Project Site is supplemented by the County's cooling plant and heating plant, which provides co-generation of energy and related air quality and GHG emissions benefits. For the CCTF, electricity and natural gas demands are based on energy estimates provided by AECOM for operation of 2.4 million square feet of structures. Energy demand for the other structures (i.e., parking garages) is based on the CalEEMod defaults.
- **Water Use and Wastewater Generation.** Potable water provided by the Los Angeles Department of Water & Power (LADWP) and wastewater at the existing MCJ facility at the Project Site is based on data provided by the County ISD/Energy Management Division for existing metered accounts. The net increase in water demand is based on the Water Supply Assessment prepared by LADWP (see Appendix N).
- **Solid Waste Disposal.** Solid waste disposal is based on the existing and projected inmate-patient and employee populations at the Project Site. Modeling is based on the assumptions included in Section 5.17, *Utilities and Service Systems*, of this EIR.
- **Area Sources.** Area and stationary sources are based on the CalEEMod defaults for use of consumer products and cleaning supplies.
- **Stationary Equipment.** Because the Proposed Project would include structures over 16 stories high, modeling includes occasional testing of emergency generators. Emergency generators require periodic (e.g., monthly) testing, which would occur for an hour a month. Due to the model limitations (i.e., estimates maximum daily emissions), the model run conservatively assumes up to one hour of operation of up to two emergency generators per day for existing conditions and four emergency generators per day for the Proposed Project conditions.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.6-1 The Proposed Project would not generate GHG emissions that may have a significant impact on the environment. [Threshold GHG-1]

Impact Analysis: The following discusses potential GHG emissions impacts associated with Options 1 and 2 of the Proposed Project. Because regional GHG impacts are cumulative, the below analysis evaluates GHG emissions impacts at both the Project Site and the SSPS Site under Option 1 and the Project Site and the Vignes Lot under Option 2.

Spring Street Parking Structure Site (Option 1)

Short-Term Impacts

Development under the Proposed Project would contribute to global climate change through direct and indirect emissions within the Project Site and energy associated with operation of a new parking structure at the SSPS Site.

For purposes of this analysis, it is assumed that construction of the SSPS Site would take approximately 1 year (2018 to 2019) in Phase 0. Once the SSPS is built, Phase 1 construction would take approximately 5.2 years (2019 to 2024). Phase 2 construction activities would take approximately 3.0 years (2024 to 2027). During Phase 1 and Phase 2 construction, the Proposed Project would result in a temporary increase in emissions due to the shuttles from the SSPS Site to the Project Site. This would occur for approximately 9 years until the new parking structure is built in Phase 2. GHG emissions from one-time construction activities are amortized into the operational phase GHG emissions inventory to account for one-time emissions from construction and the shuttle bus use, in accordance with SCAQMD Working Group methodology described in Section 5.6.2.1, and are shown in Table 5.6-7, *Construction GHG Emissions, Option 1*.

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

Table 5.6-7 Construction GHG Emissions, Option 1

Source	GHG Emissions
	MTCO ₂ e ¹
Construction Phase	
Spring Street Parking Structure Site	
Year 2018	407
Year 2019	274
Project Site – Phase 1	
Year 2019	398
Year 2020	2,303
Year 2021	2,848
Year 2022	2,791
Year 2023	2,718
Year 2024	392
Project Site – Phase 2	
Year 2024	194
Year 2025	1,445
Year 2026	1,310
Year 2027	1,024
Total Construction Emissions	16,103
Construction 30-Year Amortized	537
Temporary Shuttle Bus Emissions	
9-Years of Shuttle Bus Operation	530
30-Year Amortized Emissions	18
Total Amortized Construction Emissions	554

Source: CalEEMod Version 2016.3.1. Totals may not add to 100 percent due to rounding.

Long-Term Impacts

The GHG emissions inventory for the Proposed Project at buildout compared to existing conditions is in Table 5.6-8, *Long-Term MCJ and CCTF GHG Emissions, Option 1*. The majority of emissions generated at the Project Site are from on-road transportation sources. Transportation sources of criteria air pollutant emission at buildout are based on the traffic impact analysis conducted by Fehr & Peers (see Appendix M of this EIR). The Proposed Project would generate a net increase of 2,473,240 additional annual VMT at Project buildout, primarily as a result of an increase in employees at the CCTF. However, transportation emissions rates are anticipated to decrease. The primary reason for this decrease is an increase in the average corporate fuel economy of vehicles as a result of state and federal laws, including the Pavley Advanced Clean Cars program, as well as vehicle turnover, which improve the overall fuel economy of California’s vehicle fleets. The second highest emissions sector is energy use.

5. Environmental Analysis
 GREENHOUSE GAS EMISSIONS

Table 5.6-8 Long-Term MCJ and CCTF GHG Emissions, Option 1

Source	GHG Emissions (MTCO _{2e})		
	Existing (MCJ)	Project (CCTF)	Net Increase
Area	<1	<1	<1
Energy ¹	19,896	15,936	-3,960
On-Road Transportation	38,963	29,335	-9,628
Stationary	17	33	17
Waste	6,926	6,742	-184
Water	1,581	1,647	66
Annual Amortized Temporary	0	554	554
Total All Sectors	67,383	54,249	-13,134
SCAQMD Bright-Line Threshold	—	—	3,000 MTCO _{2e}
Exceeds Threshold?	—	—	No

Source: CalEEMod Version 2016.3.1.

As shown in the table, the Proposed Project at buildout under Option 1 would generate a net decrease in GHG emissions of 13,134 MTCO_{2e} per year. Thus, the total GHG emissions generated from the Proposed Project would not exceed SCAQMD Working Group’s bright-line screening threshold of 3,000 MTCO_{2e}, which is applicable for all land use types, but would result in a beneficial impact. The Proposed Project would replace existing 1960s and 1970s structures that were built prior to modern building codes, with newer, more energy-efficient structures. Consequently, as shown in the table, GHG emissions from energy use is the primary reason for the decrease in GHG emissions. Additionally, improved vehicle fleet efficiency coupled with turnover of older vehicles would also result in a decrease in emissions from the transportation sector. The decrease in solid waste disposal is a result of a decrease in the number of inmate-patients onsite. Therefore, impacts would be less than significant.

Vignes Lot (Option 2)

Short-Term Impacts

As stated previously, for the purpose of this analysis, it is assumed that construction of the Proposed Project under the Option 2 scenario would generally be the same as under Option 1 with the exception of the proposed parking structure. It is assumed that the Vignes Lot would be developed under the same time frame assumed for the SSPS Site under Option 1 (i.e., 2018 to 2019). Additionally, it is assumed that Phases 1 and 2 would also be developed under the same time frames under Option 2 as they would be under Option 1 (i.e., 2019 to 2024 and 2024 to 2027, respectively). However, under Option 2, a parking structure on the Project Site would be eliminated and replaced by the proposed offsite Vignes Lot parking structure, which would serve as the primary parking structure for the CCTF. Furthermore, it is assumed that no shuttle service between the proposed Vignes Lot and the Project Site would be available. Construction-related GHG emissions are shown in Table 5.6-9, *Construction GHG Emissions, Option 2*.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

Table 5.6-9 Construction GHG Emissions, Option 2

Source	GHG Emissions
	MTCO ₂ e ¹
Construction Phase	
Vignes Lot	
Year 2018	548
Year 2019	426
Project Site – Phase 1	
Year 2019	398
Year 2020	2,303
Year 2021	2,848
Year 2022	2,791
Year 2023	2,718
Year 2024	392
Project Site – Phase 2	
Year 2024	194
Year 2025	1,445
Year 2026	1,310
Year 2027	1,024
Total Construction Emissions	16,390
Construction 30-Year Amortized	546

Source: CalEEMod Version 2016.3.1.

Long-Term Impacts

The GHG emissions inventory for the Proposed Project at buildout compared to existing conditions is in Table 5.6-10, *Long-Term MCJ/CCTF GHG Emissions, Option 2*. Similar to development under Option 1, the majority of emissions generated at the Project Site are from on-road transportation sources and energy use. As shown in the table, the Proposed Project at buildout under Option 2 would generate a net decrease in GHG emissions of 13,352 MTCO₂e per year. Thus, the total GHG emissions generated from the Proposed Project under Option 2 would not exceed SCAQMD Working Group’s bright-line screening threshold of 3,000 MTCO₂e, which is applicable for all land use types, but would result in a beneficial impact. Therefore, impacts would be less than significant.

5. Environmental Analysis
 GREENHOUSE GAS EMISSIONS

Table 5.6-10 Long-Term MCJ/CCTF GHG Emissions, Option 2

Source	GHG Emissions (MTCO _{2e})		
	Existing (MCJ)	Project (CCTF)	Net Increase
Area	<1	<1	<1
Energy ¹	19,896	15,726	-4,170
On-Road Transportation	38,940	29,335	-9,628
Stationary	17	33	17
Waste	6,926	6,742	-184
Water	1,581	1,647	66
Annual Amortized Temporary	0	546	546
Total All Sectors	67,360	54,031	-13,352
SCAQMD Bright-Line Threshold	—	—	3,000 MTCO _{2e}
Exceeds Threshold?	—	—	No

Source: CalEEMod Version 2016.3.1.

Summary

Because the GHG emissions associated with the Proposed Project under either Option 1 or Option 2 would not exceed SCAQMD’s screening threshold and would result in a net decrease in emissions, the Proposed Project’s cumulative contribution to GHG emissions is less than significant

Level of Significance before Mitigation: Impact 5.6-1 would be less than significant.

Impact 5.6-2 The Proposed Project would be consistent with plans adopted to reduce GHG emissions. [Threshold GHG-2]

Impact Analysis: The following plans have been adopted or are proposed and are applicable for development in the Project Area and the consistency evaluation below is applicable to development of both the Project Site and the SSPS Site under Option 1 and the Project Site and the Vignes Lot under Option 2.

CARB Scoping Plan

The CARB Scoping Plan is applicable to state agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the County to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdictions’ emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the LCFS and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program). The Proposed Project is required to adhere to the programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32. The Proposed Project would be constructed to achieve the LEED Gold certification. Additionally, heating and cooling at

5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

the Project Site is supplemented by the County's cooling plant and heating plant, which provides co-generation of energy and related air quality and GHG emissions benefits. The modernization and redevelopment of the Project Site is also consistent with the State's Climate Commitment to double energy saving in existing buildings because it would replace 1960s- and 1970s-era structures—constructed prior to adoption of the California Building and Energy Efficiency Code—with newer facilities that achieve the latest Building and Energy Efficiency Standards. However, the Scoping Plan itself is not directly applicable to the Proposed Project. The Proposed Project would not conflict with the statewide programs adopted to achieve the statewide GHG reduction targets outlined in the Scoping Plan.

SCAG's 2016-2040 RTP/SCS

SCAG adopted the 2016-2040 RTP/SCS in April 2016 pursuant to the requirements of SB 375. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in the 2016 RTP/SCS is to provide for a plan that allows the southern California region to grow in more compact communities in existing urban areas; provide neighborhoods with efficient and plentiful public transit and abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands (SCAG 2016). The 2016 RTP/SCS transportation projects help more efficiently distribute population, housing, and employment growth as well as forecast development that is generally consistent with regional-level general plan data. The projected regional development pattern, when integrated with the proposed regional transportation network identified in the RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region. The RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the RTP/SCS, but provides incentives for consistency for governments and developers. The 2016 RTP/SCS SCAG anticipates lowering GHG emissions below 2005 levels by 8 percent by 2020, 18 percent by 2035, and 22 percent by 2040 (SCAG 2016). Key strategies in the SCAG's RPT/SCS are identified in Table 5.9-4, *RTP/SCS Consistency*, in Section 5.9, *Land Use and Planning*.

The Proposed Project would be consistent with SCAG's regional goals of for infill development proximate to transit and is within a high quality transit area. Therefore, the Proposed Project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2016-2040 RTP/SCS. Impacts would be less than significant.

County CCAP

The County drafted a CCAP that identifies and evaluates feasible and effective policies to reduce GHG emissions in order to reduce energy costs, protect air quality, and improve the economy and the environment. The policies in the proposed CCAP represent the County's actions to achieve the GHG reduction targets of AB 32 for target year 2020. A consistency analysis with the Proposed Project to the applicable measures in the proposed CCAP is in Table 5.6-11, *Consistency with the County CCAP*. As shown in the table, the Proposed Project would be consistent with the measures in the CCAP. Therefore, the Proposed Project would not conflict with the CCAP and impacts are considered less than significant.

5. Environmental Analysis
 GREENHOUSE GAS EMISSIONS

Table 5.6-11 Consistency with the County CCAP

#	Applicable Measure	Consistency
BE-1	Green Building Development. Promote and incentivize at least Tier 1 voluntary standards within CALGreen for all new residential and nonresidential buildings. Develop a heat island reduction plan and facilitate green building development by removing regulatory and procedural barriers.	Consistent: The 2016 Building Energy Efficiency Standards became effective January 1, 2017, and would be applicable to the Proposed Project. Pursuant to the County's Green Building Ordinance, the Proposed Project would achieve the Tier 1 energy standards. Additionally, per the standard in the Energy and Environmental Policy recently adopted by the County, the Proposed Project would be built to achieve the U.S. Green Building Council's LEED "Gold" certification. The modernization and redevelopment of the Project Site is consistent with the State's Climate Commitment to double energy saving in existing buildings because it would replace structures that were built prior to adoption of the California Building and Energy Efficiency Code with newer facilities that achieve the latest Building and Energy Efficiency Standards (see RR GHG-1 and GHG-8).
BE-3	Solar Installations. Promote and incentivize solar installations for new and existing homes, commercial buildings, carports and parking areas, water heaters, and warehouses.	Consistent: The current Building Energy Efficiency Standards do not mandate that new buildings have solar panels. Solar power is only viable as an energy alternative in areas where there is sufficient solar reflection (e.g., enough sunlight). However, the current Building Standards require that new buildings be constructed to accommodate the rooftop load and wiring necessary to support solar panels. In accordance with Executive Order B-30-15, approximately 50 percent of total energy demand in the state would be through renewable resources in order to achieve the 50 percent RPS goal.
LUT-1	Bicycle Programs and Supporting Facilities. Construct and improve bicycle infrastructure to increase biking and bicyclist access to transit and transit stations/hubs. Increase bicycle parking and "end-of-trip" facilities offered through the unincorporated County.	Consistent: The Proposed Project would be required to provide anchored bicycle racks within 200 feet of the visitor's entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces added. For employees, long-term secured bicycle parking is required to be provided for 5 percent of the tenant-occupied (i.e., staff) motorized vehicle parking spaces being. The Proposed Project is also required to designate parking for low-emitting, fuel-efficient, and carpool/vanpool spaces for 10 percent of the total parking capacity. (see RR GHG-2).
LUT-4	Travel Demand Management. Encourage ride- and bike-sharing programs and employer sponsored vanpools and shuttles. Encourage market-based bike sharing programs that support bicycle use around and between transit stations/hubs. Implement marketing strategies to publicize these programs and reduce commute trips.	Consistent: The Proposed Project would include an Employee Commute Reduction Plan (ECRP), commonly known as a Rideshare Plan, in accordance with County Code Chapter 5.9, Vehicle Trip Reduction. The ECRP will specify the measures to be implemented at the CCTF to achieve the target average vehicle ridership performance goal for employee vehicles subject to the Ordinance. (see RR GHG-3)
LUT-8	Electric Vehicle Infrastructure. Install 500 electric vehicle (EV) charging facilities at County owned public venues (e.g., hospitals, beaches, stand-alone parking facilities, cultural institutions, and other facilities) and ensure that at least one-third of these charging stations will be available for visitor use.	Consistent: Expanding the number of electric vehicle (EV) charging opportunities for the public would help the County meet and exceed future projections for anticipated plug-in electric vehicle (PEV) registrations. MM AIR-2 in Section 5.2, <i>Air Quality</i> , would require installation of EV supply equipment for a minimum of 5 percent of the parking spaces at the SSPS Site and at the Project Site (see MM AIR-1).

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

Table 5.6-11 Consistency with the County CCAP

#	Applicable Measure	Consistency
LUT-9	Idling Reduction Goal. Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer’s specifications.	Consistent: The current idling limit adopted by CARB and local air district regulations is 5 minutes. MM AIR-4 in Section 5.2, <i>Air Quality</i> , requires that buses, vendor deliveries, and shuttle buses at the Project Site limit nonessential vehicle idling to no more than 3 minutes at any one location. Additionally, MM AIR-4 requires “No Idling” signs for loading area on private property be posted at shuttle stops and loading bays (see MM AIR-4).
LUT-12	Electrify Construction and Landscaping Equipment. Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.	Consistent: Pursuant to the California Building Code (Title 24), buildings are now required to include electrical outlets on the exterior of buildings to support the use of electric landscaping equipment.
WAW-1	Per Capita Water Use Reduction Goal. Meet the State established per capita water use reduction goal, as identified by SB X7-7 for 2020.	Consistent: The Proposed Project would comply with CALGreen Section 301.3.1, “Nonresidential Buildings greater than or equal to 25,000 square feet,” which requires implementation of the Tier 1 voluntary standards (30 percent reduction) for indoor potable water use and 60 percent of Reference evapotranspiration (ET _o) for outdoor potable water use; Section 5.106.4, Low Impact Development; and Section 4.106.5, Landscape Design, which requires use of non-invasive drought-tolerant plants, which would reduce per capita urban water use (see RR GHG-4).
SW-1	Waste Diversion Goal. For the County’s unincorporated areas, adopt a waste diversion goal to comply with all state mandates associated with diverting from landfill disposal at least 75% of the waste by 2020.	Consistent: In accordance with the County’s Construction & Demolition (C&D) Debris Recycling and Reuse Ordinance, Chapter 20.87 of the County Code, the Proposed Project would be required to divert a minimum of 65 percent of the C&D debris by weight and submit a Recycling and Reuse Plan to the County’s Construction & Demolition Unit for review and approval. Additionally, according to the County’s Green Building Ordinance, which requires implementation of CALGreen Tier 1 voluntary standards, the Proposed Project building materials would include a minimum of 10 percent of recycled content based on estimated cost (see RR GHG-5).

Source: County of Los Angeles, 2015.

Spring Street Parking Structure Site (Option 1)

Because regional GHG impacts are cumulative, the impact assessment above evaluates construction at both the Project Site and the SSPS Site. No additional analysis is necessary.

Vignes Lot (Option 2)

Because regional GHG impacts are cumulative, the impact assessment above evaluates construction at both the Project Site and the Vignes Lot. No additional analysis is necessary.

Level of Significance before Mitigation: With implementation of RR GHG-1 through RR GHG-8, Impact 5.6-2 would be less than significant.

5. Environmental Analysis GREENHOUSE GAS EMISSIONS

5.6.5 Cumulative Impacts

Climate change is a global phenomenon that is cumulative by nature, the result of combined worldwide contributions of GHGs to the atmosphere over many years. Therefore, significant direct impacts associated with the Proposed Project, as discussed above, also serve as the Proposed Project's cumulative impacts.

RR GHG-1 through RR GHG-5 and RR GHG-8 would ensure that GHG emissions from buildout of the Proposed Project under both options would be minimized. The Proposed Project would generate a net decrease in GHG emissions and would not exceed the SCAQMD Working Group's bright-line threshold of 3,000 MTCO_{2e} for all land use types. As a result, the Proposed Project would not substantially contribute to GHG emissions impacts in California. GHG emissions impacts would not be cumulatively considerable.

5.6.6 Level of Significance Before Mitigation

The following impacts would be less than significant:

- **Impact 5.6-1** The Proposed Project would not generate GHG emissions that may have a significant impact on the environment.

With implementation of RR GHG-1 through RR GHG-8, the following impacts would be less than significant

- **Impact 5.6-2** The Proposed Project would be consistent with plans adopted to reduce GHG emissions.

5.6.7 Mitigation Measures

No mitigation measures are necessary because there were no significant impacts identified under the applicable thresholds.

5.6.8 Level of Significance After Mitigation

Because no mitigation measures are required, impacts are the same as described in Section 5.6.6.

5.6.9 References

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5. Environmental Analysis

GREENHOUSE GAS EMISSIONS

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