

3.7 Greenhouse Gas Emissions

This section presents the Proposed Project’s greenhouse gas (GHG) emissions. The section contains: (1) a description of the local setting of the Project Site and surrounding areas to establish baseline conditions; (2) a summary of the relationship between GHG emissions and global climate change; (3) an overview of applicable regulations related to GHG emissions; (4) an assessment of current GHG emissions at the City, State, National and Global levels; (5) a quantitative analysis of future GHG emissions associated with construction and operation of the Proposed Project; and (6) an analysis of the consistency of the Proposed Project with applicable regulations, plans, and policies to reduce GHGs as set forth by the State of California, South Coast Air Quality Management District (SCAQMD), Southern California Association of Governments (SCAG) and the City of Inglewood (City).

Comments received in response to the NOP for the EIR regarding GHG emissions can be found in Appendix B. Any applicable issues and concerns regarding potential impacts related to greenhouse gas emissions as a result of implementation of the Project are analyzed within this section.

The analysis included in this section was developed based on project-specific construction and operational features described in Chapter 2, Project Description, and the GHG analysis provided in the project applicant’s *AB 987 Application for the Inglewood Basketball and Event Center*, dated November 2018, provided in Appendix XX of this Draft EIR.¹

3.7.1 Environmental Setting

GHG Fundamentals

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, current data increasingly indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to anthropogenic (human) GHG emissions is currently one of the most important and widely debated scientific, economic and political issues in the United States and the world. The extent to which increased concentrations of GHGs have caused or will cause climate change and the appropriate actions to limit and/or respond to climate change are the subject of significant and rapidly evolving regulatory efforts at the federal and state levels of government.

GHGs are compounds in the Earth’s atmosphere that play a critical role in determining temperature near the Earth’s surface. More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth’s atmosphere, but retain some of the low frequency

¹ Murphy’s Bowl LLC, 2018. *AB 987 Application for the Inglewood Basketball and Event Center, Attachment G: Greenhouse Gas Analysis*. November 2018.

infrared energy that otherwise is radiated back from the Earth towards space, resulting in a warming of the atmosphere.

Not all GHGs possess the same capacity to induce atmospheric warming; as a result, the warming contribution of a GHG is commonly quantified in the common unit of carbon dioxide equivalent (CO₂e) over a 100-year period, by applying the appropriate global warming potential (GWP) value.² By applying using the applicable GWP for each GHG, project-related emissions can be tabulated in the common unit of metric tons per year CO₂e. GWP ratios are provided by the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories were calculated using the GWPs from the IPCC's Second Assessment Report (SAR), published in 1996. The IPCC has since updated the GWP values based on the latest science in its Fourth Assessment Report (AR4) and Fifth Assessment Report, published in 2007 and 2013, respectively. California Air Resources Board (CARB) uses the AR4 GWPs in the statewide GHG emissions inventory,³ in the current Climate Change Scoping Plan,⁴ and in the current version of the California Emissions Estimator Model (CalEEMod)⁵ that is used to calculate CO₂e values for construction as well as operations for existing and project build-out conditions. Compounds that are regulated as GHGs are discussed below.

Commented [1]: Add citation to both Assessment Reports.

Carbon Dioxide (CO₂): CO₂ is the most abundant anthropogenic GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO₂ is the reference gas (GWP of 1) for determining the GWPs of other GHGs. CO₂ accounted for approximately 83 percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Methane (CH₄): CH₄ is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, anaerobic decomposition of organic matter in landfills, manure management, and leaks in natural gas pipelines. The GWP of CH₄ is 25 in the IPCC AR4. CH₄ accounted for approximately 9 percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Nitrous Oxide (N₂O): N₂O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N₂O is 298 in the IPCC AR4. N₂O emissions accounted for approximately 3 percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

² GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The California Air Resources Board (CARB) reports GHG emission inventories for California using the GWP values from the IPCC AR4.

³ California Air Resources Board, 2018. California Greenhouse Gas Emission Inventory - 2018 Edition. 2016 Inventory Documentation. Available: <https://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed February 8, 2019.

⁴ California Air Resources Board, 2017. *California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target*. Available: www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 9, 2019. November, 2017.

⁵ Version 2016.3.1, available at www.caleemod.com.

Hydrofluorocarbons (HFCs): HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWPs of HFCs range from 124 for HFC-152a to 14,800 for HFC-23 in the IPCC AR4. HFCs and PFCs (see below) combined accounted for approximately 5 percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Perfluorocarbons (PFCs): PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 7,390 to 17,700 in the IPCC AR4.

Sulfur Hexafluoride (SF₆): SF₆ is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ has a GWP of 22,800 in the IPCC AR4. SF₆ emissions accounted for less than 1 percent of anthropogenic GHG emissions (CO₂e) in California in 2016.

Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of and inability to accurately model the Earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC's *Fifth Assessment Report (AR5)* states that is extremely likely that the dominant cause of the observed warming since the mid-20th century is the anthropogenic increase in greenhouse gas concentrations.⁶ A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity.⁷

The Fourth California Climate Change Assessment (Fourth Assessment), published in 2018, found that the potential impacts in California due to global climate change include: loss in snow pack; sea level rise; more extreme heat days per year; more high ozone days; more extreme forest fires; more severe droughts punctuated by extreme precipitation events; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation.⁸ The Fourth Assessment's findings are

⁶ Intergovernmental Panel on Climate Change, 2014. *Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Available: www.ipcc.ch/report/ar5/syrhttps/. Accessed March 10, 2019.

⁷ Anderegg, William R. L., J.W. Prall, J. Harold, S.H., Schneider, 2010. Expert Credibility in Climate Change, *Proceedings of the National Academy of Sciences of the United States of America*. 2010;107:12107-12109.

⁸ California Governor's Office of Planning and Research (OPR), Scripps Institution of Oceanography, CEC, California Public Utilities Commission. 2018. *Statewide Summary Report. California's Fourth Climate Change*

consistent with climate change studies published by the California Natural Resources Agency (CNRA) since 2009, starting with the *California Climate Adaptation Strategy*⁹ as a response to the Governor’s Executive Order S-13-2008. In 2014, the CNRA rebranded the first update of the 2009 adaptation strategy as the *Safeguarding California Plan*.¹⁰ The 2018 update to *Safeguarding California Plan* identifies hundreds of ongoing actions and next steps state agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations.¹¹

In 2016, the CNRA released *Safeguarding California: Implementation Action Plans* in accordance with Executive Order B-30-15, identifying a lead agency to lead adaptation efforts in each sector. In accordance with the 2009 *California Climate Adaptation Strategy*, the [California Energy Commission \(CEC\)](#) was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011.¹² The information provided on the Cal-Adapt website represents a projection of potential future climate scenarios comprised of local average values for temperature, sea level rise, snowpack and other data representative of a variety of models and scenarios, including potential social and economic factors. According to the Cal-Adapt website, the portion of the State in which the Project Site is located could result in an average increase in temperature of approximately 4.2° to 6.9°F by 2070-2090, compared to the baseline period of 1961-1990.

Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change.

Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore, its indirect effects, are uncertain. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would worsen air quality. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State.¹³ However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires.

Assessment. Publication number: SUMCCCA4-2018-013. Available: <http://www.climateassessment.ca.gov/state/docs/20190116-StatewideSummary.pdf>. Accessed March 11, 2019.

⁹ California Natural Resources Agency, 2009. *2009 California Climate Adaptation Strategy*. Available: <http://resources.ca.gov/climate/safeguarding>. Accessed March 10, 2019.

¹⁰ California Natural Resources Agency, 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. Available: <http://resources.ca.gov/climate/safeguarding/>. Accessed March 10, 2019. July 2014.

¹¹ California Natural Resources Agency, 2018. *Safeguarding California Plan: 2018 Update*. Available: <http://resources.ca.gov/climate/safeguarding/>. Accessed March 10, 2019. January 2018.

¹² The Cal-Adapt website address is: <http://cal-adapt.org>. Accessed March 10, 2019.

¹³ California Environmental Protection Agency, 2013. *Preparing California for Extreme Heat: Guidance and Recommendations*. Available: <https://toolkit.climate.gov/reports/preparing-california-extreme-heat-guidance-and-recommendations>. Accessed March 10, 2019. October 2013.

Water Supply

There is a high degree of uncertainty with respect to the overall impact of global climate change on future water supplies in California. Studies indicate considerable variability in predicting precise impacts of climate change on California hydrology and water resources. Increasing uncertainty in the timing and intensity of precipitation will challenge the operational flexibility of California's water management systems. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge.¹⁴

Hydrology and Sea Level Rise

As discussed above, climate changes could potentially affect: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm, and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events.¹⁵

Agriculture

California has a massive agricultural industry that represents 11.3 percent of total US agricultural revenue. Higher CO₂ levels can stimulate plant production and increase plant water-use efficiency. However, a changing climate presents significant risks to agriculture due to "potential changes to water quality and availability; changing precipitation patterns; extreme weather events including drought, severe storms, and floods; heat stress; decreased chill hours; shifts in pollinator lifecycles; increased risks from weeds, pest and disease; and disruptions to the transportation and energy infrastructure supporting agricultural production"¹⁶

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. ~~Increasing~~ increased concentrations of GHGs are likely to accelerate the rate of climate change. Scientists expect that the average global surface

¹⁴ California Natural Resources Agency, 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. Available: <http://resources.ca.gov/climate/safeguarding/>. Accessed March 10, 2019. July 2014.

¹⁵ California Natural Resources Agency, 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. Available: <http://resources.ca.gov/climate/safeguarding/>. Accessed March 10, 2019. July 2014.

¹⁶ California Natural Resources Agency, 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. Available: <http://resources.ca.gov/climate/safeguarding/>. Accessed March 10, 2019. July 2014.

temperature could rise by 2-11.5°F (1.1-6.4°C) by 2100, with significant regional variation.¹⁷ Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. Sea level could rise as much as two feet along most of the US coastline. With climate change, ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement in response to changing climatic conditions, direct impacts to species health, and mismatches in timing between seasonal life-cycle events such as species migration and food availability.¹⁸

Existing Conditions

California Greenhouse Gas Emissions Inventory

The California Air Resources Board (CARB) compiles GHG inventories for the State. Based on the 2016 GHG inventory data (i.e., the latest year for which data are available from CARB) prepared by CARB in 2018, California emitted 429.4 million metric tons of CO₂e (MMTCO₂e) including emissions resulting from imported electrical power.¹⁹ Between 1990 and 2016, the population of California grew by approximately 9.4 million (from 29.8 to 39.2 million).²⁰ This represents an increase of approximately 31 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from \$773 billion in 1990 to \$2.62 trillion in 2016 representing an increase of approximately 239 percent (just over three times the 1990 gross state product).²¹ Despite the population and economic growth, CARB's 2016 Statewide inventory indicated that California's net GHG emissions in 2016 were just below 1990 levels, which is the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32).

Table 3.7-1, *State of California GHG Emissions*, identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2016. As shown in the table, the transportation sector is the largest contributor to statewide GHG emissions at approximately 39 percent in 2016.

¹⁷ National Research Council, 2010. *Advancing the Science of Climate Change*. Available: <http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/Science-Report-Brief-final.pdf>. Accessed March 11, 2019.

¹⁸ California Natural Resources Agency, 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. Available: <http://resources.ca.gov/climate/safeguarding/>. Accessed March 10, 2019. July 2014.

¹⁹ California Air Resources Board, 2018. California Greenhouse Gas 2000-2016 Inventory by Scoping Plan Category – Summary. Available: https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed March 10, 2019. June 22, 2018.

²⁰ California Department of Finance, 2019. E-5 Population and Housing Estimates for Cities, Counties and the State. Available: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/>. Accessed February 8, 2019.

²¹ California Department of Finance, 2018. Gross State Product. Available: http://www.dof.ca.gov/Forecasting/Economics/Indicators/Gross_State_Product/. Accessed February 8, 2019. Amounts are based on current dollars as of the date of the report (May 2018).

**TABLE 3.7-1
 STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS**

Category	Total 1990 Emissions using IPCC SAR (MMTCO ₂ e)	Percent of Total 1990 Emissions	Total 2016 Emissions using IPCC AR4 (MMTCO ₂ e)	Percent of Total 2016 Emissions
Transportation	150.7	[=b3/b12*100 \# "0%"]	169.4	39%
Electric Power	110.6	[=b4/b12*100 \# "0%"]	68.6	16%
Commercial Fuel Use	14.4	[=b5/b12*100 \# "0%"]	15.2	4%
Residential	29.7	[=b6/b12*100 \# "0%"]	24.2	6%
Industrial	103.0	[=b7/b12*100 \# "0%"]	89.6	21%
Recycling and Waste ^a	–	–	8.8	2%
High GWP/Non-Specified ^b	1.3	<1%	19.8	5%
Agriculture/Forestry	23.6	[=b10/b12*100 \# "0%"]	33.8	8%
Forestry Sinks	-6.7		-- ^c	--
Net Total (IPCC SAR)	426.6	100%	--	--
Net Total (IPCC AR4) ^d	431	100%	429.4	100%

Commented [2]: Adding up the percentages above results in a total of 101%. Add note that "Totals may not add up exactly due to rounding."
Commented [3]: Same comment, as the percentages add up to 101% here as well.

NOTES:

- ^a Included in other categories for the 1990 emissions inventory.
- ^b High GWP gases are not specifically called out in the 1990 emissions inventory.
- ^c Revised methodology under development (not reported for 2012).
- ^d California Air Resources Board (CARB) revised the State's 1990 level GHG emissions using GWPs from the Intergovernmental Panel on Climate Change Fourth Assessment Report (IPCC AR4).

SOURCES:

CARB, 2017. 1990 to 2004 Inventory Data and Documentation. Available: <https://www.arb.ca.gov/cc/inventory/1990level/1990data.htm>. Accessed: March 11, 2019;
 CARB, 2018. California Greenhouse Gas 2000-2016 Inventory by Scoping Plan Category – Summary. Available: https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed: March 10, 2019.

City of Inglewood Greenhouse Gas Emissions Inventory

The South Bay Cities Council of Governments (SBCCOG) received funding from Southern California Edison's 2013-2014 Local Government Partnership Strategic Plan Pilots program to assist local governments within the South Bay sub-region perform inventories of local GHG emissions and develop GHG reduction programs and policies. As a member of the SBCCOG, the City collaborated with the SBCCOG to develop inventories of community-wide greenhouse gas emissions for the years 2005 and 2007.²² Additionally, the City of Inglewood developed a community-wide inventory for 2010 as reported in the 2013 Inglewood Energy and Climate

²² South Bay Cities Council of Governments, 2011. *City of Inglewood Community Greenhouse Gas Emissions Inventory Report*. Available: http://www.southbaycities.org/sites/default/files/documents/inventories/Inglewood_Community_Inventory.pdf. Accessed March 10, 2019.

Action Plan.²³ **Table 3.7-2, City of Inglewood GHG Emissions by Sector: 2005 to 2010**, is a summary of the City’s emissions from each sector for the years 2005, 2007 and 2010 and the percent change from 2005 to 2010. As shown in Table 3.7-2, the City’s community and municipal GHG emissions decreased approximately 2.7 percent from 2005 to 2010, falling from 610,910 MTCO₂e in 2005 to 594,273 MTCO₂e in 2010.

TABLE 3.7-2
CITY OF INGLEWOOD GHG EMISSIONS BY SECTOR: 2005 TO 2010 (MTCO₂e)

Sector	2005	2007	2010	2010 % of total	Percent Change (2005 to 2010)
Transportation	320,254	311,853	322,042	54.2%	+0.6%
Residential Energy	124,872	123,062	122,429	20.6%	-2.0%
Commercial/Municipal Energy	97,176	99,458	95,261	16.0%	-2.0%
Industrial Energy	34,940	31,272	26,100	4.4%	-25.3%
Solid Waste	19,855	16,841	16,448	2.8%	-17.2%
Water	13,813	13,272	11,993	2.0%	-13.2%
Total	610,910	595,758	594,273	100%	-2.7%

SOURCE: City of Inglewood, *Inglewood Energy and Climate Action Plan* (2013).

The City’s Community-wide emissions were categorized in six sectors: Transportation, Residential Energy, Commercial/Municipal Energy, On-road, Solid Waste, Water, Wastewater, and Off-road Sources. The Municipal emissions were added as one sector:

- **Transportation** includes emissions from vehicles traveling (wholly or partially) within the City, and emissions from operating off-road vehicles and equipment (e.g., lawn and garden equipment, construction equipment, industrial equipment, and light commercial equipment).
- **Residential Energy** includes emissions from electricity and natural gas consumption in residential buildings.
- **Commercial/Municipal Energy** includes emissions from electricity and the on-site combustion of natural gas and fuel use in nonresidential buildings and city facilities (including outdoor lighting).
- **Industrial Energy** includes emissions from electricity and the on-site combustion of natural gas and fuel use in industrial buildings and facilities.
- **Solid Waste** includes emissions from solid waste that is generated in the community and sent to landfills.
- **Water** includes emissions from the electricity used to source, treat, and deliver imported water in the community that is not accounted for in the community utility data.

Commented [4]: This is a list of 8 categories, not six. On- and Off-road Sources are not categories shown in Table 3.7-2, and the first bullet point below would seem to indicate that these were included in the Transportation sector.

Commented [5]: Unclear what this means. Municipal energy emissions seem to have been combined with emissions from commercial uses.

²³ City of Inglewood, 2013, *Inglewood Energy and Climate Action Plan*. Available: <https://www.cityofinglewood.org/225/Sustainability>. Accessed Feb 15, 2019. March 2013.

As shown in Table 3.7-2, the transportation sector was the largest contributor to the most recent inventory (2010) at over 54 percent of the total. Residential Energy consumption is the second-largest contributor to emissions at 20.6 percent of the total, followed by Commercial/Municipal Energy (16 percent), Industrial Energy (4.4 percent), Solid Waste (2.8 percent), and Water (2 percent).

Existing Project Site

The entire Project Site is comprised of approximately 28 acres of land. All but six of the parcels that make up the Project Site are currently vacant or undeveloped. The vacant parcels within the Project Site total approximately 23 acres, or more than 85 percent of the Project Site. The six developed parcels include a fast-food restaurant, a motel, a light manufacturing/warehouse facility, a warehouse, a commercial catering business, and a groundwater well and related facilities.

GHG emissions are currently associated with vehicle trips to and from the existing land uses at the Project Site (on-road mobile sources), on-site combustion of natural gas for heating and cooking, on-site combustion emissions from landscaping equipment (area source), off-site combustion of fossil fuels for electricity, and off-site emissions from solid waste decomposition, water conveyance, and wastewater treatment. The estimated existing GHG emissions are summarized in **Table 3.7-3, Estimated GHG Emissions for Existing Site**. As shown, the primary sources of emissions are from transportation and energy demand (electricity and natural gas). Detailed emissions calculations are provided in Appendix D of this Draft EIR.

**TABLE 3.7-3
 ESTIMATED GHG EMISSIONS FOR EXISTING SITE**

Emissions Source	CO₂e (Metric Tons per Year) ^{a, b}
Fast Food Restaurant	9,999
Motel	999
Manufacturing/Warehouse	999
Water Well	999
Total Existing Site Emissions	9,999

NOTES:

- ^a Totals may not add up exactly due to rounding in the modeling calculations.
- ^b CO₂e emissions are calculated using the global warming potential values from the Intergovernmental Panel on Climate Change Fourth Assessment Report.

SOURCE: ESA, 2019

Commented [6]: Assuming these placeholders for the calculations?

3.7.2 Adjusted Baseline Environmental Setting

As described in Chapter 3.0, Section 3.0.5, Section 3.7.1.3, Public Services Greenhouse Gas Emissions, assumes the Adjusted Baseline Environmental Setting. Analysis of GHG emissions is cumulative in nature because global climate change effects are caused by cumulative global emissions. Although the HPSP development that is included in the Adjusted Baseline will be

constructed and in operation prior to opening of the Proposed Project, it will not have a measurable impact on global emissions and does not affect the thresholds used for analysis of the Proposed Project. Thus, the adjusted baseline is not relevant to the GHG impact analysis. No other changes to the existing environmental setting related to GHG emissions would occur under the Adjusted Baseline.

3.7.3 Regulatory Setting

This section provides a summary of pertinent federal, State, and local GHG laws, executive orders, regulations, and policies.

Federal

US Environmental Protection Agency “Endangerment” and “Cause or Contribute” Findings

In 2007, the US Supreme Court held that the United States Environmental Protection Agency (US EPA) must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.*, (127 S. Ct. 1438 (2007)), twelve states and cities, including California, together with several environmental organizations sued to require the US EPA to regulate GHGs as pollutants under the Federal Clean Air Act (CAA). The Supreme Court ruled that GHGs fit within the CAA’s definition of a pollutant and the US EPA had the authority to regulate GHGs.

On December 7, 2009, the US EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- ***Endangerment Finding:*** The current and projected concentrations of the six key GHGs—CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—in the atmosphere threaten the public health and welfare of current and future generations.
- ***Cause or Contribute Finding:*** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings did not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for motor vehicles.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, the US EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule was a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), that required the US EPA to develop “... mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy...” The Reporting Rule applied to most entities that emit 25,000 metric tons of CO₂e or more per year at their facility from stationary sources. Starting in 2010, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions.

The Reporting Rule also mandated recordkeeping and administrative requirements in order for the US EPA to verify annual GHG emissions reports.

Vehicle Emissions Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the US. Pursuant to the act, the US EPA and National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. Under the standards, by 2025 vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile. According to the US EPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.²⁴ Notably, California harmonized its vehicle efficiency standards through 2025 with the federal standards (see Advanced Clean Car initiative below).

In August 2018, the US EPA and the NHTSA proposed maintaining the 2020 Corporate Average Fuel Economy (CAFE) and CO₂ standards for model years 2021 through 2026. The estimated CAFE and CO₂ standards for model year 2020 are 43.7 mpg and 204 grams of CO₂ per mile for passenger cars and 31.3 mpg and 284 grams of CO₂ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. A final rule is expected to in 2019.

Commented [7]: Expected to *what*? Be released? Adopted? Become effective?

State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the State. The major components of California's climate protection initiative are reviewed below.

Executive Orders Establishing California Greenhouse Gas Reduction Targets

Through executive order, California governors have established long-term GHG reduction goals for the State.

Executive Order S-3-05

On June 1, 2005, Governor Schwarzenegger announced Executive Order S-3-05,²⁵ which established the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and

²⁴ US EPA, 2012. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. Available: (August 2012). Available: <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-model-year-2017-and-later-light-duty-vehicle>. Accessed March 11, 2019.

²⁵ California Office of the Governor, 2005. Executive Order S-3-05. Available: https://www.climatechange.ca.gov/state/executive_orders.html. Accessed March 4, 2019.

- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15, in which, the Governor:

Commented [8]: Add citation.

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030;
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets; and
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006 (AB 32)

Following the issuance of Executive Order S-3-05, in 2006, the California State Legislature adopted the California Global Warming Solutions Act of 2006 (passed as Assembly Bill (AB) 32 and codified in the California Health and Safety Code [HSC], Division 25.5), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective.

Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

CARB 2008 and 2014 Scoping Plans

A specific requirement of AB 32 was the preparation of a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020. CARB developed and approved the initial Scoping Plan in 2008, outlining the regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs that would be needed to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives.²⁶

The First Update to the Scoping Plan was approved by CARB in May 2014 and built upon the initial Scoping Plan with new strategies and recommendations. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO_{2e}. CARB also updated the State's 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new

²⁶ California Air Resources Board, 2008. *Climate Change Scoping Plan*. Available: <https://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>. Accessed March 4, 2019. December 2008.

estimates for future fuel and energy demand, and the reductions required by regulation that were adopted for motor vehicles and renewable energy.²⁷

SB 32/AB 197

In 2016, Senate Bill (SB) 32 and its companion bill AB 197, augmented ~~the original~~ AB 32 and amended HSC Division 25.5, establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and including provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

2017 Climate Change Scoping Plan Update

In response to SB 32 and the 2030 GHG reduction target, CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update) in December 2017.²⁸ The 2017 Scoping Plan Update outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels.²⁹ The 2017 Scoping Plan Update identifies key sectors of the State's implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the target Statewide 2030 emissions limit is 260 MMTCO_{2e}, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO_{2e} beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade Program (discussed further below) to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2030 limit set forth by E.O. B-30-15.

The 2017 Scoping Plan Update's strategy for meeting the State's 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030, including the following, described elsewhere in this section:

- Extending the low carbon fuel standard (LCFS) beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- SB 350, which increases the renewables ~~Renewables Portfolio Standard (RPS) to 50 percent by 2030 and requires the commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency energy efficiency savings in electricity and natural gas final end uses of retail customers for existing buildings by 2030. These targets may be achieved through energy efficiency savings and demand reductions from a variety of programs, including but not limited to appliance and building energy efficiency standards and a comprehensive program to achieve greater energy efficiency standards in existing buildings;~~

Commented [9]: The doubling of energy efficiency standards is a cumulative goal to be achieved through a variety of programs, only one of which is achieving greater energy efficiency in existing buildings.

²⁷ California Air Resources Board, 2014. *First Update to the Climate Change Scoping Plan*. Available: <https://www.arb.ca.gov/cc/scopingplan/document/updatescopingplan2013.htm>. Accessed March 4, 2019. May 2014.

²⁸ California Air Resources Board, 2017. *California's 2017 Climate Change Scoping Plan*. Available: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed March 4, 2019. November 2017.

²⁹ California Air Resources Board, 2017. *California's 2017 Climate Change Scoping Plan*. Available: <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>. Accessed March 4, 2019. November 2017.

- The 2016 Mobile Source Strategy is estimated to reduce emissions from mobile sources including an 80 percent reduction in smog-forming emissions and a 45 percent reduction in diesel particulate matter from 2016 levels in the South Coast Air Basin, a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels;
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies (described in more detail below);
- SB 1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- Assembly Bill 398, which extends the state Cap-and-Trade Program through 2030.

In the 2017 Scoping Plan Update, CARB recommends statewide targets of no more than six metric tons CO₂e per capita by 2030 and no more than two metric tons CO₂e per capita by 2050. CARB acknowledges that since the statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State, it is appropriate for local jurisdictions to derive evidence-based local per-capita goals based on local emissions sectors and growth projections.

To demonstrate how a local jurisdiction can achieve their long-term GHG goals at the community plan level, CARB recommends developing a geographically-specific GHG reduction plan (i.e., climate action plan) consistent with the requirements of CEQA Section 15183.5(b). A so-called “CEQA-qualified” GHG reduction plan, once adopted, can provide local governments with a streamlining tool for project-level environmental review of GHG emissions, provided there are adequate performance metrics for determining project consistency with the plan. Absent conformity with such a plan, CARB recommends “that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving *no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development.*”³⁰

Cap-and-Trade Program

Initially, authorized by the California Global Warming Solutions Act of 2006 (AB 32), and extended through the year 2030 with the passage of Assembly Bill 398 (2017), the California Cap-and-Trade Program is a core strategy that the State is using to meet its GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. CARB designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from major sources (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 metric tons CO₂e per year) (deemed “~~covered entities, capped sectors~~”) by setting a firm cap on statewide GHG emissions and

Commented [10]: Or change "capped sectors" elsewhere in this paragraph to "covered entities."

³⁰ California Air Resources Board, 2017. *California's 2017 Climate Change Scoping Plan*. Available: www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 9, 2019. November 2017. pp. 100-101.

employing market mechanisms to achieve reductions.³¹ Under the Cap-and-Trade Program, an overall limit is established for GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 metric tons CO₂e per year) and declines over time, and facilities subject to the cap can trade permits to emit GHGs. The statewide cap for GHG emissions from the capped sectors commenced in 2013 and declines over time, achieving GHG emission reductions throughout the Program's duration.³²

If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. In other words, the Cap-and-Trade Program can be adaptively managed by the State to ensure achievement of California's 2020 and 2030 GHG emissions reduction mandates.

California Environmental Quality Act and Senate Bill 97

Under CEQA, California Public Resources Code, Division 13, starting with Section 21000, lead agencies are required to disclose the reasonably foreseeable adverse environmental effects of projects they are considering for approval. GHG emissions have the potential to adversely affect the environment because they are known to contribute to global climate change. In turn, global climate change has the potential to have a multitude of physical environmental effects, such as raising sea levels, altering rainfall and snowfall, and affecting habitat.

Senate Bill (SB) 97, signed in August 2007, acknowledged that climate change is a prominent environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, no later than July 1, 2009. The California Natural Resources Agency was required to certify or adopt those guidelines by January 1, 2010. On December 30, 2009, the Natural Resources Agency adopted amendments to the State CEQA Guidelines, as required by SB 97. The State CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents. The amendments became effective March 18, 2010.

CEQA Guidelines

CEQA Guidelines section 15064.4 specifically addresses the significance of GHG emissions, directing that a lead agency ~~should~~ ~~shall~~ make a "good-faith effort" to "describe, calculate or estimate" GHG emissions in CEQA environmental documents.³³ Section 15064.4 further states

Commented [11]: Per amendments to the Guidelines that became effective in 2019, this provision now says "shall."

³¹ 17 CCR §§ 95800 to 96023.

³² See generally 17 CCR §§ 95811, 95812.

³³ California Natural Resources Agency, 2009. CEQA Guidelines Amendments, Sections 15064.4, 15183.5, 15364.5. Available: http://resources.ca.gov/ceqa/guidelines/documents_uploaded_during_the_rulemaking_process_for_sb_97.html. Accessed March 18, 2019.

that the analysis of GHG impacts should include consideration of (1) the extent to which the project may increase or reduce GHG emissions, (2) whether the project GHG emissions would exceed a ~~locally-applicable~~ threshold of significance ~~that the lead agency determines applies to the project~~, and (3) the extent to which the project would comply with “regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.”

As described above, the CEQA Guidelines focus on the effects of GHG emissions as cumulative impacts, and direct that they should be analyzed in the context of CEQA’s requirements for cumulative impact analysis.³⁴ CEQA Guidelines section 15064.4 states that “the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency’s analysis should consider a timeframe that is appropriate for the project. The agency’s analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes.” The CEQA Guidelines also establish that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located (CEQA Guidelines section 15064(h)(3)).

The CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions, nor do they set a numerical threshold of significance for GHG emissions. Guideline 15064.7(c) clarifies that in ~~developing~~ ~~adopting~~ ~~or using~~ thresholds of significance, a lead agency may appropriately ~~consider~~ ~~review~~ thresholds developed by other public agencies, or recommended by ~~other~~ experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

When GHG emissions are found to be significant, ~~the~~ CEQA Guidelines ~~Section 15126.4(c)~~ include the following direction on measures to mitigate GHG emissions:

Consistent with Section 15126.4(a), lead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others:

- (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency’s decision;

³⁴ California Natural Resources Agency, 2009. Final Statement of Reasons for Regulatory Action, December 2009, pp. 20-26. Available: http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed March 15, 2019.

- (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures;
- (3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions;
- (4) Measures that sequester greenhouse gases; and
- (5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions.

In late 2018, the Natural Resources Agency finalized amendments to the CEQA Guidelines, including changes to CEQA Guidelines section 15064.4, which addresses the analysis of GHG emissions. The amendments were approved by the Office of Administrative Law and filed with the Secretary of State. The amendments became effective on December 28, 2018. The revision of CEQA Guidelines section 15064.4 clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects.
- The focus of the lead agency's analysis should be on the project's effect on climate change, rather than simply focusing on the quantity of emissions and how that quantity of emissions compares to statewide or global emissions.
- The impacts analysis of GHG emissions is global in nature and thus should be considered in a broader context. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.
- Lead agencies should consider a timeframe for the analysis that is appropriate for the project.
- A lead agency's analysis must reasonably reflect evolving scientific knowledge and state regulatory schemes.
- Lead agencies may rely on plans prepared pursuant to section 15183.5 (Plans for the Reduction of Greenhouse Gases) in evaluating a project's greenhouse gas emissions.
- In determining the significance of a project's impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is consistent with those plans, goals, or strategies.
- The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Commented [12]: Consider deleting, as this was well established before the adoption of the amendments.

Transportation Sector

Assembly Bill 1493

In 2002, Governor Davis signed Assembly Bill (AB) 1493 (Pavley), which required the CARB to develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by the CARB to be vehicles whose primary use is noncommercial personal transportation in the state.”

Commented [13]: Add citation.

To meet the requirements of AB 1493 (Pavley), the CARB approved amendments to the California Code of Regulations (CCR) in 2004, requiring automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight [GVW] rating of less than 10,000 pounds and that is designed primarily for the transportation of persons), beginning with model year 2009. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for model year 2016 are approximately 37 percent lower than the limits for the first year of the regulations, model year 2009. For light-duty trucks with an LVW of 3,751 pounds to a GVW of 8,500 pounds, as well as for medium-duty passenger vehicles, GHG emissions will be reduced approximately 24 percent between 2009 and 2016.

Because the Pavley standards (named for the bill’s author, state Senator Fran Pavley) would impose stricter standards than those under the CAA, California applied to the US EPA for a waiver under the CAA; this waiver was initially denied in 2008. In 2009, however, the US EPA granted the waiver. The waiver has been extended consistently since 2009; however, in 2018 the US EPA and NHTSA indicated their intent to revoke California’s waiver, and prohibit future state emissions standards enacted under the CAA. As of spring 2019, the waiver was still in place and the federal government’s revocation of the waiver was uncertain.

As discussed previously, the federal government adopted standards for model year 2012 through 2016 light-duty vehicles. In addition, the US EPA and US Department of Transportation (USDOT) have adopted GHG emission standards for model year 2017 through 2025 vehicles. These standards are slightly different from the State’s standards (described in the Advanced Clean Car Program), but the State of California has agreed not to contest them, in part due to the fact that while the national standard would achieve slightly less reductions in California, it would achieve greater reductions nationally and is stringent enough to meet state GHG emission reduction goals.

Advanced Clean Car Program

In 2012, CARB approved the Pavley II (LEV III) Advanced Clean Cars program, an emissions-control scheme for model years 2015 through 2025 that allows manufacturers to comply with the 2017 through 2025 national standards while meeting state law. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The zero emissions vehicle (ZEV) program will act as the

focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years.³⁵

Executive Order B-16-12 - 2025 Goal for Zero Emission Vehicles

In March 2012, Governor Brown issued ~~an~~ Executive Order B-16-12 establishing a goal of 1.5 million zero emission vehicles (ZEVs) on California roads by 2025. In addition to the ZEV goal, EO B-16-12 stipulated that by 2015 all major cities in California will have adequate infrastructure and be ‘zero-emission vehicle ready’; that by 2020 the state will have established adequate infrastructure to support 1 million ZEVs; and that by 2050, virtually all personal transportation in the State will be based on ZEVs, and GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

Mobile Source Strategy

In May 2016, CARB released the updated Mobile Source Strategy that demonstrates how the State can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next fifteen years. The strategy promotes a transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of ~~vehicle miles traveled (VMTs)~~ VMT. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. It also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 “last mile” delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions, and a 50 percent reduction in the consumption of petroleum-based fuels.³⁶

Executive Order B-48-18 - 2030 Goal for Zero Emission Vehicles

On January 26, 2018, Governor Brown issued ~~an~~ Executive Order B-48-18 establishing a goal of 5 million ZEVs on California roads by 2030.

Low Carbon Fuel Standard (LCFS)

In January 2007, Governor ~~Brown~~ Schwarzenegger enacted Executive Order S-01-07, which mandates ~~that the State do~~ the following: (1) establish a statewide goal to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard (LCFS) for transportation fuels in California. The overall goal of the low carbon fuel standard is to lower the carbon intensity of California transportation fuel. With adoption of the 2017 Scoping Plan Update, the standard has been changed to a reduction in fuel carbon intensity of at least 18 percent by 2030.

³⁵ California Air Resources Board, 2017. *California’s 2017 Climate Change Scoping Plan*. Available: www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 10, 2019. November 2017.

³⁶ California Air Resources Board, 2016. *Mobile Source Strategy*. Available: <https://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc.htm>. Accessed March 10, 2019. May 2016.

Land Use Transportation Planning

On September 30, 2008, Governor Schwarzenegger signed SB 375 (Chapter 728, Statutes of 2008), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations (MPOs), to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.³⁷

Under SB 375, the regional reduction target must be incorporated within the applicable region's MPO's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities need to be consistent with the SCS, and consistency with the SCS can provide certain CEQA streamlining for proposed projects; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plan) are not required to be consistent with either the RTP or SCS.

In 2011, CARB adopted GHG emissions reduction targets for SCAG, the MPO for the region in which the City of Inglewood is located. In March 2018, the CARB updated the SB 375 targets to require an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions.^{38,39} As these reduction targets were updated after the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) was adopted, it is expected that a future iteration of the RTP/SCS will be updated to reflect them. The proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the LCFS regulations.⁴⁰

Energy Sector

Appendix F of the CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting, and Impact Analysis portions of technical sections, as well as through mitigation measures and alternatives. In accordance with Appendix F, the energy effects of the Proposed Project are addressed in Section 3.5, Energy Demand and Conservation of this EIR.

Title 24 Building Energy Efficiency Standards

California Code of Regulations, Title 24, establishes California's Building Energy Efficiency Standards; Part 11 is referred to as the California Green Building Standards (CALGreen) Code.

³⁷ California Air Resources Board, Sustainable Communities. Available: <https://www.arb.ca.gov/cc/sb375/sb375-rd.htm>. Accessed March 10, 2019.

³⁸ California Air Resources Board, 2017. *California's 2017 Climate Change Scoping Plan*. Available: www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed March 10, 2019. November 2017.

³⁹ California Air Resources Board, 2018. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Available: <https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>. Accessed March 11, 2019.

⁴⁰ California Government Code Section 65080(b)(2)(A)(iii)

The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.”⁴¹ Since 2011, the CALGreen Code is mandatory for all new residential and non-residential buildings constructed in the State. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality. The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2017.⁴²

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods.

The current Title 24, Part 6 standards (2016 standards) were made effective on January 1, 2017. The next update to the Title 24 energy efficiency standards (2019 standards) go into effect on January 1st, 2020.

Renewables Portfolio Standard

In 2002, the passage of SB 1078 established the Renewables Portfolio Standard (RPS), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from eligible renewable sources by 2017. SB 107, adopted into law in 2006, changed the target date to 2010.

In November 2008, Executive Order S-14-08 expanded the state’s RPS goal to 33 percent renewable power by 2020. In September 2009, Executive Order S-21-09 directed CARB (under its AB 32 authority) to enact regulations to help the state meet the 2020 goal of 33 percent renewable energy. The 33 percent by 2020 RPS goal was codified in April 2011 with the passage of Senate Bill X1-2. This new RPS applied to all electricity retailers in the state, including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators.

⁴¹ California Building Standards Commission, 2010. *California 2010 Green Building Standards Code (CalGreen)*. Available: http://www.hcd.ca.gov/building-standards/docs/2010_CA_Green_Bldg.pdf. Accessed March 11, 2019.

⁴² California Building Standards Commission, 2016. 2016 California Green Building Standards Code (Part 11 of Title 24). Available: <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen>. Accessed March 11, 2019.

Senate Bill 350, signed in October 2015, required retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Most recently, Senate Bill 100, signed by Governor Brown on September 10, 2018, increased the RPS requirement to 60 percent eligible renewables by 2030 and 100 percent by 2045.

SB 1383 (Short-lived Climate Pollutants)

Senate Bill 1383, passed in 2016, requires statewide reductions in short-lived climate pollutants (SLCPs) across various industry sectors. The SLCPs covered under AB 1383 include methane, fluorinated gases, and black carbon – all GHGs with a much higher warming impact than carbon dioxide and with the potential to have detrimental effects on human health. SB 1383 requires the CARB to adopt a strategy to reduce methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The methane emission reduction goals include a 75 percent reduction in the level of statewide disposal of organic waste from 2014 levels by 2025.

Assembly Bill 987 (AB 987)

AB 987 was signed by Governor Jerry Brown on September 30, 2018. The bill added section 21168.6.8 to the [California Public Resources Code \(PRC\)](#) and provides for expedited judicial review in the event that the adequacy of this EIR is challenged, so long as certain requirements are met. The discussion of AB 987 below is focused on the provisions of PRC 21168.6.8 that address GHG emissions; a full description of AB 987 is provided in Chapter 1, Introduction.

AB 987 is described in this chapter under Regulatory Setting because it potentially applies to the project and addresses issues related to GHG emissions. However, it is not a regulatory statute, per se, in that the Proposed Project is not required to comply with the provisions of PRC 21168.6.8. Rather, AB 987 established provisions by which the Proposed Project may voluntarily decide to attempt to qualify under the provisions of the statute, and if deemed qualified by the Governor's Office, then it would be afforded certain benefits of expedited judicial review ~~for any action brought to challenge related to the certification adequacy of this EIR or the approval of the Proposed Project.~~ In the event that the Proposed Project does not qualify under the provisions of AB 987, the Proposed Project could still be reviewed and approved by the City, but judicial review would occur under the standard provisions provided in CEQA.

The provisions of PRC section 21168.6.8 are similar to the provisions of the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (AB 900; PRC sections 21178 through 21189.3), ~~as subsequently amended,~~ which first established expedited judicial review of certified Environmental Leadership Development Projects. In order to qualify for expedited judicial review under AB 987, the Proposed Project would have to ~~provide~~ ~~achieve certain traffic~~ ~~vehicle trip~~ ~~reduction~~ ~~benefit~~ ~~goals,~~ reductions in ~~certain~~ ~~criteria~~ ~~air~~ pollutants and toxic air

contaminants, and, most relevantly for this section, would have to achieve a “no net new” GHG emissions standard.⁴³

Regional

South Coast Air Quality Management District

The Project Site is located in the South Coast Air Basin (Air Basin), which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Geronio Pass area in Riverside County. The SCAQMD is responsible for air quality planning in the Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards. This is accomplished through air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations, and by supporting and implementing measures to reduce emissions from motor vehicles.

The SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.⁴⁴ Within its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, the SCAQMD did not adopt a GHG significance threshold for land use development projects (e.g., mixed-use/commercial projects) and formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds. The aforementioned Working Group has been

⁴³ Office of the Governor, 2018. Assembly Bill 987 Signing Message. September 30.

⁴⁴ CARB 2008a (should be SMAQMD?)

inactive since 2011 and the SCAQMD has not formally adopted any GHG significance threshold for land use development projects.

SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization for the region in which the City of Inglewood is located. In April 2016, SCAG adopted the *2016 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life* (RTP/SCS), which is an update to the previous 2012 RTP/SCS.⁴⁵

The 2016 RTP/SCS considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2016 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level. Compliance with and implementation of 2016 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions associated with reduced per capita vehicle miles traveled (VMT).

SCAG's 2016 RTP/SCS builds on the land use policies that were incorporated into the 2012 RTP/SCS, and provides specific strategies for successful implementation. These strategies include development of "complete communities," defined as mixed-use districts that concentrate housing, employment, and a mix of retail and services in close proximity to each other; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "complete streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles. The 2016 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's high quality transit areas (HQTAs), which SCAG defines as areas within one-half mile of a well-serviced fixed guideway transit stop, and it includes bus transit corridors where buses pick up passengers every 15 minutes or less during peak commute hours.

In addition, the 2016 RTP/SCS includes goals and strategies to promote active transportation and improve transportation demand management (TDM). The 2016 RTP/SCS strategies support local planning and projects that serve short trips, increase access to transit, expand understanding and consideration of public health in the development of local plans and projects, and support improvements in sidewalk quality, local bike networks, and neighborhood mobility areas. The 2016 RTP/SCS proposes to better align active transportation investments with land use and

⁴⁵ Southern California Association of Governments, 2016. *2016 Regional Transportation Plan/Sustainable Communities Strategy*. Available: <http://scagtrpssc.net/Pages/FINAL2016RTPSCS.aspx>. Accessed March 11, 2019. Adopted April 2016.

transportation strategies, increase competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation.

In June 2016, CARB accepted SCAG's quantification of GHG emission reductions from the 2016 RTP/SCS and the determination that the 2016 RTP/SCS would, if implemented, achieve the 2020 and 2035 GHG emission reduction targets established by CARB.⁴⁶

The Proposed Project would not be inconsistent with the strategies and principles of the 2016 RTP/SCS that are designed to reduce VMT and the GHG emissions associated with on-road vehicle travel. The Proposed Project would be infill development that provides a dense mix of recreation and entertainment, office, retail, restaurant, community, and hotel uses, on parcels of infill urban land accessible to and served by public transit and near existing and planned housing. The Proposed Project has been designed with the complete communities concept in mind by integrating community design with land use planning and transportation planning, and by providing construction and permanent jobs for a variety of skills and education, recreational and cultural events, and a full-range of shopping, entertainment and services all within a relatively short distance.

The Proposed Project meets the HQTAs criteria of being within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commute hours. The Project Site is adjacent to two bus lines (the 117 line that travels east-west on Century Boulevard, and the 212/312 lines that run north-south on Prairie Avenue, both of which stop at the intersection of West Century Boulevard and South Prairie Avenue), and within one-half mile of a third bus route (the combined 740/40 Metro bus line that travels north-south on Hawthorne Boulevard/La Brea Avenue, stopping at the intersection at Century Boulevard), all of which are bus lines that pick up passengers at intervals of 15 minutes or less during peak commute hours.

As described in Section 2.5.5 Circulation, the Proposed Project would include an Event Transportation Management Plan (TMP) designed to facilitate multi-modal travel to and from events at the Project Site in a safe and efficient manner during event days. In addition, the Proposed Project would implement a Transportation Demand Management (TDM) program designed to reduce vehicle trips by attendees, employees, visitors, and customers through the use of alternate modes of transportation including transit, shuttles, ridesharing, walking, and biking.

The Proposed Project's consistency with the 2016-2040 RTP/SCS is evaluated in more detail in Section 3.7.4, Analysis, Impacts and Mitigation

⁴⁶ California Air Resources Board, 2016. *Southern California Association of Governments' (SCAG) 2016 Sustainable Communities Strategy (SCS) ARB Acceptance of GHG Quantification Determination*, Available: https://www.arb.ca.gov/cc/sb375/scag_executive_order_g_16_066.pdf. Accessed March 11, 2019. June 2016.

Local

City of Inglewood General Plan

The City of Inglewood General Plan sets forth goals, objectives, and policies for the future development of the City and designates the location of desired future land uses within the City. The latest adoptions of the individual elements of the City of Inglewood General Plan are as follows: Land Use Element, adopted September 14, 2016; Housing Element 2013-2021, adopted January 28, 2014; Conservation Element, adopted October 21, 1997; Open Space Element, adopted December 1995; Safety Element, adopted July 1995; Circulation Element, adopted December 15, 1992; and Noise Element, adopted September 1, 1987.

Commented [14]: Make consistent with discussion elsewhere. LU Element was adopted in 1980 and amended most recently in 2016. (In other words, portions of the current Land Use Element were adopted as far back as 1980, and a completely new LU Element was not adopted in 2016).

The following goals from the Land Use Element⁴⁷ of the City of Inglewood General Plan are relevant to GHG emissions.

Circulation Goal: Insure that proposed new uses can be accommodated by adequate and safe streets.

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Circulation Goal: Promote and support adequate public transportation within the City and the region.

Circulation Goal: Develop a safe and adequate pedestrian circulation system which is barrier free for the handicapped.

Commented [16]: Discuss relevance.

As described in Chapter 2, Project Description, the Proposed Project constitutes a large-scale development integrating commercial, office, entertainment uses that promotes pedestrian uses and supports public transportation. The Proposed Project would include provisions that would promote the use of public transportation as a means of travel to and from the Proposed Arena, including a Transportation Hub at the East Parking Garage site, shuttle stops on Prairie Avenue, and a shuttle system for large events that would connect the Proposed Project to nearby Metro stations. In addition, improvements to the sidewalks fronting the Project Site and a pedestrian bridge crossing Prairie Avenue would promote a safe pedestrian circulation system that would meet ADA requirements. For these reasons, the Proposed Project would not be inconsistent with the General Plan Land Use Element circulation goals listed above. Ultimately, it is within the authority of the City Council to determine whether the Proposed Project is consistent with the City of Inglewood General Plan.

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City of Inglewood Energy and Climate Action Plan

The Inglewood Energy and Climate Action Plan (ECAP) presents the City's community and municipal inventories, emissions forecasts, and recommended reduction targets for emissions to mitigate the City's impacts on climate change.⁴⁸ The ECAP includes a business-as-usual (BAU) forecast that estimates future emissions in 2020 and 2035 from six sectors: commercial and municipal; industrial; residential; transportation; solid waste; and water. The BAU forecast

⁴⁷ City of Inglewood, Department of Community Development and Housing, 1980. Land Use Element of the Inglewood General Plan. January 1980. Amended September 14, 2016.

⁴⁸ City of Inglewood, 2013, *Inglewood Energy and Climate Action Plan*. Available: <https://www.cityofinglewood.org/225/Sustainability>. Accessed Feb 15, 2019. March 2013.

assumes a future under regulatory conditions as they existed in 2010, and it does not include the effects of updates to Title 24, the Renewables Portfolio Standard, and the Pavley Clean Car Standards on future GHG emissions. Under the BAU forecast, Inglewood’s total GHG emissions are expected to increase approximately 14 percent from 2010 (594,273 MTCO_{2e}) to 2035 (678,283 MTCO_{2e}). On a per-service population (SP)⁴⁹ basis, the increase is shown to be just 4.5 percent, from 4.22 MTCO_{2e}/SP in 2010 to 4.41 MTCO_{2e}/SP in 2035.

The City’s greenhouse gas inventories and forecasts are summarized in **Table 3.7-4, City of Inglewood Community GHG Emissions by Sector: Existing and Forecasted (MTCO_{2e})**, below.

**TABLE 3.7-4
 CITY OF INGLEWOOD COMMUNITY GHG EMISSIONS BY SECTOR: EXISTING AND FORECASTED (MTCO_{2e})**

Sector	2005	2007	2010	2020	2035
Transportation	320,254	311,853	322,042	327,998	337,552
Residential Energy	124,872	123,062	122,429	134,843	156,574
Commercial/Municipal Energy	97,176	99,458	95,261	106,041	124,749
Industrial Energy	34,940	31,272	26,100	26,376	26,830
Solid Waste	19,855	16,841	16,448	16,782	17,555
Water	13,813	13,272	11,993	14,707	15,044
Total	610,910	595,758	594,273	626,748	678,284
Target (change from 2005)				519,273 (-15%)	412,364 (-32.5%)
Reductions from State-level Actions				-121,139	-160,002
Forecasts with implementation of State-level Actions				505,609	518,282
Reductions from Local Actions				-9,803	-10,994
Forecasts with CAP Implementation				495,806	499,208
Resulting change from 2005				- 18.8%	- 18.3%
Meet target?				yes	no

SOURCE: City of Inglewood, 2013. *Inglewood Energy and Climate Action Plan*.

The City’s emission reduction targets are 15 percent below 2005 levels by 2020 and 32.5 percent below 2005 levels by 2035. As shown in Table 3.7-4, State-level actions, such as the Pavley Clean Cars legislation, the Low Carbon Fuel Standard, the Renewables Portfolio Standard, and Title 24 upgrades are expected to reduce community emissions by 121,139 MT CO_{2e} per year by 2020, and 160,002 by year 2035. Local measures in the CAP are expected to reduce community emissions an additional 9,803 MT CO_{2e} per year by 2020, and 10,994 MT CO_{2e} per year by year 2035. The ECAP quantifies GHG reductions from the following five implementing strategies and actions:

Strategy 1 – Lead by Example with Municipal Government Actions

⁴⁹ Service population = residents plus employees working within the City limits

- Continue Building and Facility Energy Upgrades to reduce energy use
- Replace all City-owned street, park, and traffic lights with LED lights
- Accelerate city vehicle fleet replacement

Strategy 2: Increase Energy Efficiency

- Make commercial buildings more efficient
- Increase the energy efficiency of residential buildings
- Increase the energy efficiency of street and traffic lights.

Strategy 3: Support Renewable Energy Generation

- Remove barriers to renewable energy generation
- Make renewable energy generation more affordable
- Educate potential customers

Strategy 4: Improve Transportation Options and Manage Transportation Demand

- Make roadways more efficient
- Improve transit
- Improve bicycle facilities
- Make parking more efficient
- Reduce commute trips
- Encourage land use intensification and diversity

Strategy 5: Reduce Consumption and Waste

- Use less water
- Produce less water
- Promote local food production

The ECAP strategies and local actions support reducing GHG emissions.

The Proposed Project would be designed and constructed to reduce energy, water and other resources by meeting the US Green Building Council's Leadership in Energy and Environmental Design (LEED) Gold certification requirements, and would provide a dense mix of recreation, entertainment, office, retail, restaurant, community, and hotel uses on parcels of infill urban land accessible to and served by public transit and near existing and planned housing. In addition, the Proposed Project will implement a TDM program designed to reduce vehicle trips by attendees, employees, visitors, and customers through the use of alternate modes of transportation including transit, shuttles, ridesharing, walking, and biking.

As such, the Proposed Project would not be inconsistent with the ECAP. Conversely, the Proposed Project would directly support implementation of the following ECAP actions:

- Make commercial buildings more energy efficient,
- Improve transit,
- Improve bicycle facilities,
- Reduce commute trips,
- Encourage land use intensification and diversity,
- Use less water, and
- Produce less waste.

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3.7.4 Analysis, Impacts and Mitigation

Significance Criteria

The City has not adopted thresholds of significance for analysis of impacts related to GHG emissions. As described above, in 2009 the California Natural Resources Agency adopted amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. As a result of the amendments, Appendix G of the CEQA Guidelines was amended to provide screening questions to assist lead agencies when assessing a project's potential impacts with regard to GHG emissions, and additional amendments were made in 2018. The following thresholds of significance have been adapted from CEQA Guidelines section 15064.4 and CEQA Guidelines Appendix G.

A significant impact would occur if the Proposed Project would:

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

Section 15064.4 of the CEQA Guidelines gives lead agencies the discretion to determine whether to assess the significance of GHG emissions quantitatively or qualitatively. Section 15064.4 recommends considering certain factors, among others, when determining the significance of a project's GHG emissions, including the extent to which the project may increase or reduce GHG emissions as compared to the existing environment; whether the project exceeds an applicable significance threshold; and extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. None of the amendments establishes a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including by looking to thresholds developed by other public agencies, such as air districts, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (see Section 15064.7(c)).

The California Natural Resources Agency's *Final Statement of Reasons* for Regulatory Action for the Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97 ("Final Statement of Reasons") similarly provides that project-level quantification of emissions should be conducted where it would assist in determining the significance of emissions, even where no numeric threshold applies. In such cases, the Final Statement of Reasons provides that qualitative thresholds can be utilized to determine the ultimate significance of project-level impacts based on a project's consistency with plans, which can include applicable regional transportation plans. Even when using a qualitative threshold, quantification can inform "the qualitative factors" and indicate "whether emissions reductions are possible, and, if so, from which sources."⁵⁰

⁵⁰ California Natural Resources Agency, 2009. Final Statement of Reasons for Regulatory Action, December 2009, pp. 20-26. Available: http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf. Accessed March 15, 2019.