

## **IV. Environmental Impact Analysis**

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### **D. Greenhouse Gas Emissions**

#### **1. Introduction**

This section of the Draft EIR provides a discussion of global climate change, existing regulations pertaining to global climate change, an evaluation of the Project's consistency with plans adopted for the reduction or mitigation of greenhouse gas (GHG) emissions, an inventory of the GHG emissions that would result from the Project, and an analysis of the potential impact of these GHGs. Calculation worksheets, assumptions, and model outputs used in the analysis are contained in Appendix B of this Draft EIR.

#### **2. Environmental Setting**

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in average temperature of Earth's surface and atmosphere. One identified cause of global warming is an increase of GHGs in the atmosphere. GHGs are those compounds in Earth's atmosphere that play a critical role in determining Earth's surface temperature.

Earth's natural warming process is known as the "greenhouse effect." It is called the greenhouse effect because Earth and the atmosphere surrounding it are similar to a greenhouse with glass panes in that the glass allows solar radiation (sunlight) into Earth's atmosphere but prevents radiative heat from escaping, thus warming Earth's atmosphere. Some levels of GHGs keep the average surface temperature of Earth close to a hospitable 60 degrees Fahrenheit. However, it is believed that excessive concentrations of anthropogenic GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences.<sup>1</sup>

Scientists studying the particularly rapid rise in global temperatures have determined that human activity has resulted in increased emissions of GHGs, primarily from the burning of fossil fuels (from motor vehicle travel, electricity generation, consumption of

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<sup>1</sup> USEPA, *Climate Change: Basic Information*, [www.epa.gov/climatechange/basics/](http://www.epa.gov/climatechange/basics/), accessed February 11, 2019.

natural gas, industrial activity, manufacturing, etc.), deforestation, agricultural activity, and the decomposition of solid waste. Scientists refer to the global warming context of the past century as the “enhanced greenhouse effect” to distinguish it from the natural greenhouse effect.<sup>2</sup>

Global GHG emissions due to human activities have grown since pre-industrial times. As reported by the U.S. Environmental Protection Agency (USEPA), global carbon emissions from fossil fuels increased by over 16 times between 1900 and 2008 and by about 1.5 times between 1990 and 2008. In addition, in the Global Carbon Budget 2014 report, published in September 2014, atmospheric carbon dioxide (CO<sub>2</sub>) concentrations in 2013 were found to be 43 percent above the concentration at the start of the Industrial Revolution, and the present concentration is the highest during at least the last 800,000 years.<sup>3</sup> Global increases in CO<sub>2</sub> concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. With regard to emissions of non-CO<sub>2</sub> GHG, these have also increased significantly since 1990.<sup>4</sup> In particular, studies have concluded that it is very likely that the observed increase in methane (CH<sub>4</sub>) concentration is predominantly due to agriculture and fossil fuel use.<sup>5</sup>

In August 2007, international climate talks held under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) led to the official recognition by the participating nations that global emissions of GHG must be reduced. According to the “Ad Hoc Working Group on Further Commitments of Annex I Parties under the Kyoto Protocol,” avoiding the most catastrophic events forecast by the United Nations Intergovernmental Panel on Climate Change (IPCC) would entail emissions reductions by industrialized countries in the range of 25 to 40 percent below 1990 levels. Because of the Kyoto Protocol’s Clean Development Mechanism, which gives industrialized countries credit for financing emission-reducing projects in developing countries, such an emissions goal in industrialized countries could ultimately spur efforts to cut emissions in developing countries as well.<sup>6</sup>

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<sup>2</sup> Center for Climate and Energy Solutions, *Climate Change 101: Understanding and Responding to Global Climate Change*.

<sup>3</sup> C. Le Quéré, et al., *Global Carbon Budget 2014*, (*Earth System Science Data*, 2015, doi:10.5194/essd-7-47-2015).

<sup>4</sup> USEPA, *Global Greenhouse Gas Emissions Data*, [www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data](http://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data), accessed February 11, 2019.

<sup>5</sup> USEPA, *Atmospheric Concentrations of Greenhouse Gas*, updated August 2016.

<sup>6</sup> United Nations Framework Convention on Climate Change, *Press Release—Vienna UN Conference Shows Consensus on Key Building Blocks for Effective International Response to Climate Change*, August 31, 2007.

With regard to the adverse effects of global warming, as reported by the Southern California Association of Governments (SCAG), “Global warming poses a serious threat to the economic well-being, public health and natural environment in southern California and beyond. The potential adverse impacts of global warming include, among others, a reduction in the quantity and quality of water supply, a rise in sea level, damage to marine and other ecosystems, and an increase in the incidences of infectious diseases. Over the past few decades, energy intensity of the national and State economy has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in CO<sub>2</sub> emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO<sub>2</sub> emissions, California is second only to Texas in the nation and is the 12th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the State’s population and economic activities, is also a major contributor to the global warming problem.”<sup>7</sup>

## a. GHG Background

GHGs include CO<sub>2</sub>, CH<sub>4</sub>, nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>).<sup>8</sup> Carbon dioxide is the most abundant GHG. Other GHGs are less abundant, but have higher global warming potential than CO<sub>2</sub>. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO<sub>2</sub>, denoted as CO<sub>2</sub>e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions. A general description of the GHGs is provided in Table IV.D-1 on page IV.D-4.

Global Warming Potentials (GWPs) are one type of simplified index based upon radiative properties used to estimate the potential future impacts of emissions of different gases upon the climate system. GWP is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. The larger the GWP, the more that a given gas warms the Earth compared to CO<sub>2</sub> over that time period. A summary of the atmospheric lifetime<sup>9</sup> and GWP of selected gases is presented in Table IV.D-2 on page IV.D-5. As indicated below, GWPs range from 1 to 22,800.

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<sup>7</sup> SCAG, *The State of the Region—Measuring Regional Progress, December 2006*, p. 121.

<sup>8</sup> As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.

<sup>9</sup> Atmospheric lifetime is defined as the time required to turn over the global Atmospheric burden. Source: Intergovernmental Panel on Climate Change, *IPCC Third Assessment Report: Climate Change 2001 (TAR), Chapter 4: Atmospheric Chemistry and Greenhouse Gases, 2001*, p. 247.

**Table IV.D-1  
Description of Identified GHGs<sup>a</sup>**

<b>Greenhouse Gas</b>	<b>General Description</b>
<b>Carbon Dioxide (CO<sub>2</sub>)</b>	An odorless, colorless GHG, which has both natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO <sub>2</sub> are burning coal, oil, natural gas, and wood.
<b>Methane (CH<sub>4</sub>)</b>	A flammable gas and is the main component of natural gas. When one molecule of CH <sub>4</sub> is burned in the presence of oxygen, one molecule of CO <sub>2</sub> and two molecules of water are released. A natural source of CH <sub>4</sub> is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH <sub>4</sub> , which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
<b>Nitrous Oxide (N<sub>2</sub>O)</b>	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N <sub>2</sub> O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
<b>Hydrofluorocarbons (HFCs)</b>	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH <sub>4</sub> or ethane (C <sub>2</sub> H <sub>6</sub> ) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987. HFCs are synthetic man-made chemicals that are used as a substitute for CFCs as refrigerants. HFCs deplete stratospheric ozone, but to a much lesser extent than CFCs.
<b>Perfluorocarbons (PFCs)</b>	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semi-conductor manufacturing.
<b>Sulfur Hexafluoride (SF<sub>6</sub>)</b>	An inorganic, odorless, colorless, non-toxic, and non-flammable gas. SF <sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.
<b>Nitrogen Trifluoride (NF<sub>3</sub>)</b>	An inorganic, non-toxic, odorless, non-flammable gas. NF <sub>3</sub> is used in the manufacture of semi-conductors, as an oxidizer of high energy fuels, for the preparation of tetrafluorohydrazine, as an etchant gas in the electronic industry, and as a fluorine source in high power chemical lasers.

<sup>a</sup> GHGs identified in this table are ones identified in the Kyoto Protocol and other synthetic gases recently added to the IPCC's Fifth Assessment Report.

Source: Association of Environmental Professionals, *Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007*; USEPA, *Acute Exposure Guideline Levels (AEGLs) for Nitrogen Trifluoride, January 2009*.

**Table IV.D-2  
Atmospheric Lifetimes and Global Warming Potentials**

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO <sub>2</sub> )	50–200	1
Methane (CH <sub>4</sub> )	12 (+/-3)	25
Nitrous Oxide (N <sub>2</sub> O)	114	298
HFC-23: Fluoroform (CHF <sub>3</sub> )	270	14,800
HFC-134a: 1,1,1,2-Tetrafluoroethane (CH <sub>2</sub> FCF <sub>3</sub> )	14	1,430
HFC-152a: 1,1-Difluoroethane (C <sub>2</sub> H <sub>4</sub> F <sub>2</sub> )	1.4	124
PFC-14: Tetrafluoromethane (CF <sub>4</sub> )	50,000	7,390
PFC-116: Hexafluoroethane (C <sub>2</sub> F <sub>6</sub> )	10,000	12,200
Sulfur Hexafluoride (SF <sub>6</sub> )	3,200	22,800
Nitrogen Trifluoride (NF <sub>3</sub> )	740	17,200

*Source: IPCC, Climate Change 2007: Working Group I: The Physical Science Basis, Direct Global Warming Potentials, [www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/ch2s2-10-2.html](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html), accessed January 19, 2018.*

## **b. Projected Impacts of Global Warming in California**

In 2009, California adopted a statewide Climate Adaptation Strategy (CAS) that summarizes climate change impacts and recommends adaptation strategies across seven sectors: Public health, Biodiversity and Habitat, Oceans and Coastal Resources, Water, Agriculture, Forestry, and Transportation and Energy. The California Natural Resources Agency will be updating the CAS and be responsible for preparing reports to the Governor on the status of CAS. The Natural Resources Agency produced climate change assessments which detail impacts of global warming in California.<sup>10</sup> These include:

- Sea level rise, coastal flooding and erosion of California's coastlines would increase, as well as sea water intrusion;
- The Sierra snowpack would decline between 70 and 90 percent, threatening California's water supply;
- Higher risk of forest fires resulting from increasing temperatures and making forests and brush drier. Climate change will affect tree survival and growth.

<sup>10</sup> *State of California, Department of Justice, Office of the Attorney General, Climate Change Impacts in California, <https://oag.ca.gov/environment/impact>, accessed February 11, 2019*

- Attainment of air quality standards would be impeded by increasing emissions, accelerating chemical processes, and raising inversion temperatures during stagnation episodes resulting in public health impacts;
- Habitat destruction and loss of ecosystems due to climate changing affecting plant and wildlife habitats.
- Global warming can cause drought, warmer temperatures and salt water contamination resulting in impacts to California's agricultural industry.

With regard to public health, as reported by the Center for Health and the Global Environment at the Harvard Medical School, the following are examples of how climate change can affect cardio-respiratory disease: (1) pollen is increased by higher levels of atmospheric CO<sub>2</sub>; (2) heat waves can result in temperature inversions, leading to trapped masses or unhealthy air contaminants by smog, particulates, and other pollutants; and (3) the incidence of forest fires is increased by drought secondary to climate change and to the lack of spring runoff from reduced winter snows. These fires can create smoke and haze, which can settle over urban populations causing acute and exacerbating chronic respiratory illness.<sup>11</sup>

### c. Regulatory Framework

In response to growing scientific and political concern with global climate change, federal and State entities have adopted a series of laws to reduce emissions of GHGs to the atmosphere.

#### (1) Federal

##### (a) Federal Clean Air Act

The U.S. Supreme Court ruled in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), that CO<sub>2</sub> and other GHGs are pollutants under the federal Clean Air Act (CAA), which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. The U.S. Supreme Court did not mandate that the USEPA enact regulations to reduce GHG emissions. Instead, the Court found that the USEPA could avoid taking action if it found that GHGs do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHGs contribute to climate change.

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<sup>11</sup> Paul R. Epstein, et al., *Urban Indicators of Climate Change, Report from the Center for Health and the Global Environment, (Harvard Medical School and the Boston Public Health Commission, August 2003), unpaginated.*

On April 17, 2009, the USEPA issued a proposed finding that GHGs contribute to air pollution that may endanger public health or welfare. On April 24, 2009, the proposed rule was published in the Federal Register under Docket ID No. EPA-HQ-OAR-2009-0171. The USEPA stated that high atmospheric levels of GHGs “are the unambiguous result of human emissions, and are very likely the cause of the observed increase in average temperatures and other climatic changes.” The USEPA further found that “atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act.” The findings were signed by the USEPA Administrator on December 7, 2009. The final findings were published in the Federal Register on December 15, 2009. The final rule was effective on January 14, 2010.<sup>12</sup> While these findings alone do not impose any requirements on industry or other entities, this action is a prerequisite to regulatory actions by the USEPA, including, but not limited to, GHG emissions standards for light-duty vehicles.

On July 20, 2011, the USEPA published its final rule deferring GHG permitting requirements for CO<sub>2</sub> emission from biomass-fired and other biogenic sources until July 21, 2014. Environmental groups have challenged the deferral. In September 2011, USEPA released an “Accounting Framework for Biogenic CO<sub>2</sub> Emissions from Stationary Sources,” which analyzes accounting methodologies and suggests an implementation for biogenic CO<sub>2</sub> emitted from stationary sources.

On April 4, 2012, USEPA published a proposed rule to establish, for the first time, a new source performance standard for GHG emissions. Under the proposed rule, new fossil fuel-fired electric generating units larger than 25 megawatts (MW) are required to limit emissions to 1,000 pounds of CO<sub>2</sub> per MW-hour (CO<sub>2</sub>/MWh) on an average annual basis, subject to certain exceptions.

On April 17, 2012, the USEPA issued emission rules for oil production and natural gas production and processing operations, which are required by the CAA under Title 40 of the Code of Federal Regulations (CFR), Parts 60 and 63. The final rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry that currently are not regulated at the federal level.<sup>13</sup>

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<sup>12</sup> USEPA, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, Final Rule*.

<sup>13</sup> USEPA, *2012 Final Rules for Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, Final Rule*.

(b) *Corporate Average Fuel Economy (CAFE) Standards*

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the President George W. Bush issued Executive Order 13432 in 2007, directing the USEPA, the United States Department of Transportation (USDOT), and the United States Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011; in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Barack Obama issued a memorandum directing the USEPA, USDOT, USDOE, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO<sub>2</sub> in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if the standards were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On April 2, 2018, the USEPA signed the Mid-term Evaluation Final Determination which finds that the model year 2022–2025 greenhouse gas standards are not appropriate and should be revised.<sup>14</sup> This Final Determination serves to initiate a notice to further consider appropriate standards for model year 2022–2025 light duty vehicles. On August 24, 2018, the USEPA and NHTSA published a proposal to freeze the model year 2020 standards through model year 2026 and to revoke California’s waiver under the Clean Air Act to establish more stringent standards.<sup>15</sup>

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the

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<sup>14</sup> *Federal Register, Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022–2025 Light-Duty Vehicles*, [www.federalregister.gov/documents/2018/04/13/2018-07364/mid-term-evaluation-of-greenhouse-gas-emissions-standards-for-model-year-2022-2025-light-duty](http://www.federalregister.gov/documents/2018/04/13/2018-07364/mid-term-evaluation-of-greenhouse-gas-emissions-standards-for-model-year-2022-2025-light-duty), accessed February 11, 2019.

<sup>15</sup> *Proposed Rule: The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks*, [www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0756](http://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0756), accessed February 11, 2019.



USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.<sup>16</sup>

Building on the success of the first phase of standards, in August 2016, the EPA and NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The Phase 2 standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion metric tons and save vehicle owners fuel costs of about \$170 billion.<sup>17</sup> As discussed above, the USEPA is currently in the process of reevaluating the greenhouse gas standards for model year 2022-2025 light duty vehicles.

*(c) Energy Independence and Security Act*

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

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<sup>16</sup> *The emission reductions attributable to the regulations for medium- and heavy-duty trucks were not included in the Project's emissions inventory due to the difficulty in quantifying the reductions. Excluding these reductions results in a more conservative (i.e., higher) estimate of emissions for the Project.*

<sup>17</sup> *U.S. EPA, EPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, August 2016.*

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”<sup>18</sup>

## (2) State

### *(a) Executive Order S-3-05, Executive Order B-30-15, and Executive Order B-55-18*

Executive Order S-3-05, issued in June 2005 by Governor Arnold Schwarzenegger (Governor Schwarzenegger), established GHG emissions targets for the State, as well as a process to ensure the targets are met. The order directed the Secretary for the California Environmental Protection Agency (CalEPA) to report every two years on the State’s progress toward meeting the Governor’s GHG emission reduction targets. The Statewide GHG targets established by Executive Order S-3-05 are as follows:

- By 2010, reduce to 2000 emission levels;<sup>19</sup>
- By 2020, reduce to 1990 emission levels;
- By 2050, reduce to 80 percent below 1990 levels.

Executive Order B-30-15, issued by Governor Brown in April 2015, established an additional statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. Reducing GHG emissions by 40 percent below 1990 levels in 2030 and by 80 percent below 1990 levels by 2050 (consistent with Executive Order S-3-05) aligns with scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius.<sup>20</sup>

The State Legislature adopted equivalent 2020 and 2030 statewide targets in Assembly Bill (AB) 32 and SB 32, respectively, both of which are discussed below. However, the Legislature has not yet adopted a target for the 2050 horizon year. As a result of Executive Order S-3-05, the California Climate Action Team (CAT), led by the Secretary of CalEPA, was formed. The CAT is made up of representatives from a number

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<sup>18</sup> *A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.*

<sup>19</sup> *The 2010 target to reduce GHG emissions to 2000 levels was not met. Source: Rubin, Thomas A., “Does California Really Need Major Land Use and Transportation Changes to Meet Greenhouse Gas Emissions Targets?,” July 3, 2013.*

<sup>20</sup> *CARB, Frequently Asked Questions about Executive Order B-30-15, 2030 Carbon Target and Adaptation FAQs, April 29, 2015.*

of state agencies and was formed to implement global warming emission reduction programs and to report on the progress made toward meeting statewide targets established under Executive Order S-3-05. The CAT reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in Executive Order S-3-05.<sup>21</sup>

The CAT stated that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. “Intelligent transportation systems” is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and the movement of people, goods, and service.<sup>22</sup>

Executive Order B-55-18, issued by Governor Brown in September 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and achieve and maintain net negative emissions thereafter. Based on this executive order, the California Air Resources Board (CARB) would work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

*(b) Assembly Bill 32 (California Global Warming Solutions Act of 2006) and Senate Bill 32*

Assembly Bill 32 (AB 32) (also known as the California Global Warming Solutions Act of 2006) commits the State to achieving the following:

- By 2010, reduce to 2000 GHG emission levels;<sup>23</sup> and
- By 2020, reduce to 1990 levels.

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<sup>21</sup> CalEPA, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006.

<sup>22</sup> CalEPA, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006, p. 58.

<sup>23</sup> *The 2010 target to reduce GHG emissions to 2000 levels was not met. Source: Rubin, Thomas A., “Does California Really Need Major Land Use and Transportation Changes to Meet Greenhouse Gas Emissions Targets?”, July 3, 2013.*

To achieve these goals, which are consistent with the California CAT GHG targets for 2010 and 2020, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources consistent with the CAT strategies, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reduction targets, AB 32 requires CARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.<sup>24</sup>

Senate Bill (SB) 32, signed September 8, 2016, updates AB 32 (the Global Warming Solutions Act) to include an emissions reductions goal for the year 2030. Specifically, SB 32 requires the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

### *(c) Climate Change Scoping Plan*

In 2008, CARB approved the original *Climate Change Scoping Plan* (referred to herein as the 2008 Climate Change Scoping Plan), as required by AB 32.<sup>25</sup> Subsequently, CARB approved updates to the *Climate Change Scoping Plan* in 2014 (First Update) and 2017 (2017 Update), with the 2017 Update considering SB 32 (adopted in 2016) in addition to AB 32.

The 2008 Climate Change Scoping Plan proposed a “comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.”<sup>26</sup> The 2008 Climate Change Scoping Plan identified a range of GHG reduction actions which included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

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<sup>24</sup> CARB’s list of discrete early action measures that could be adopted and implemented before January 1, 2010, was approved on June 21, 2007. The three adopted discrete early action measures are: (1) a low-carbon fuel standard, which reduces carbon intensity in fuels Statewide; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and (3) increased methane capture from landfills, which includes requiring the use of state-of-the-art capture technologies.

<sup>25</sup> CARB, *Climate Change Scoping Plan: A Framework for Change*, December 2008.

<sup>26</sup> CARB, *Climate Change Scoping Plan*, December 2008.

The 2008 Climate Change Scoping Plan called for a “coordinated set of solutions” to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the Renewables Portfolio Standard.<sup>27</sup> Additionally, the 2008 Climate Change Scoping Plan emphasizes opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas would be accomplished through “improving energy efficiency by 25 percent.”

The 2008 Climate Change Scoping Plan identifies a number of specific issues relevant to the Project, including:

- The potential of using the green building framework as a mechanism, which could enable GHG emissions reductions in other sectors (i.e., electricity, natural gas), noting that:

*A Green Building strategy will produce greenhouse gas savings through buildings that exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment.*

- The importance of supporting the Department of Water Resources’ work to implement the Governor’s objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The 2008 Climate Change Scoping Plan noted that water use requires significant amounts of energy, including approximately one-fifth of Statewide electricity.
- Encouraging local governments to set quantifiable emission reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

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<sup>27</sup> For a discussion of Renewables Portfolio Standard, refer to subsection 2(f), California Renewables Portfolio Standard.

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the scope of the reductions California has to make to return to the 1990 emissions level by 2020 as required by AB 32. CARB originally defined the “business-as-usual” or BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the 2008 Climate Change Scoping Plan. For example, in further explaining CARB’s BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. In the 2008 Climate Change *Scoping Plan*, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations).<sup>28</sup>

Subsequent to adoption of the 2008 Climate Change Scoping Plan, a lawsuit was filed challenging CARB’s approval of the *Climate Change Scoping Plan Functional Equivalent Document (FED to the Climate Change Scoping Plan)*. On May 20, 2011 (Case No. CPF-09-509562), the Court found that the environmental analysis of the alternatives in the *FED to the Climate Change Scoping Plan* was not sufficient under the California Environmental Quality Act (CEQA). CARB staff prepared a revised and expanded environmental analysis, and the *Supplemental FED to the Climate Change Scoping Plan* was approved on August 24, 2011 (Supplemental FED). The Supplemental FED indicated that there is the potential for adverse environmental impacts associated with implementation of the various GHG emission reduction measures recommended in the 2008 Climate Change Scoping Plan.

As part of the *Supplemental FED*, CARB updated the projected 2020 BAU emissions inventory based on then current economic forecasts (i.e., as influenced by the economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. CARB staff derived the updated emissions estimates by projecting emissions growth, by sector, from the State’s average emissions from 2006 through 2008. Specific emission reduction measures included were the million-solar-roofs program, the AB 1493 (Pavley I) motor vehicle GHG emission standards, and the LCFS.<sup>29</sup> In addition, CARB also factored into the 2020 BAU inventory emissions reductions associated with a 33-percent Renewable Energy Portfolio Standard (RPS) for electricity generation. Based on the new economic data, CARB determined that achieving

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<sup>28</sup> CARB, *2008 Climate Change Scoping Plan*, December 2008, p. 12.

<sup>29</sup> *Pavley I* are the first GHG standards in the nation for passenger vehicles and took effect for model years starting in 2009 to 2016. *Pavley I* could potentially result in 27.7 million metric tonnes CO<sub>2</sub>e reduction in 2020. *Pavley II* will cover model years 2017 to 2025 and potentially result in an additional reduction of 4.1 million metric tons CO<sub>2</sub>e.

the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from BAU conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures discussed above, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from the BAU conditions.<sup>30,31</sup>

In 2014, CARB adopted the First Update.<sup>32</sup> The stated purpose of the First Update was to “highlight... California’s success to date in reducing its GHG emissions and lay... the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.”<sup>33</sup> The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.<sup>34</sup>

In conjunction with the First Update, CARB identified “six key focus areas comprising major components of the State’s economy to evaluate and describe the larger transformative actions that will be needed to meet the State’s more expansive emission reduction needs by 2050.”<sup>35</sup> Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on CARB’s research efforts, it has a “strong sense of the mix of technologies needed to reduce emissions through 2050.”<sup>36</sup> Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road

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<sup>30</sup> CARB, *Supplement to the AB 32 Scoping Plan FED, Table 1.2-2*.

<sup>31</sup> *The emissions and reductions estimates found in the Supplemental FED to the Climate Change Scoping Plan fully replace the estimates published in the 2008 Climate Change Scoping Plan. See CARB, Resolution 11-27 (Aug. 24, 2011) (setting aside approval of 2008 Climate Change Scoping Plan and associated emissions forecasts, and approving the Supplemental FED). The estimates in the 2008 document are 596 million metric tons CO<sub>2</sub>e under 2020 BAU and a required reduction of 169 million metric tons CO<sub>2</sub>e (28.4 percent).*

<sup>32</sup> *Health & Safety Code Section 38561(h) requires CARB to update the Scoping Plan every five years.*

<sup>33</sup> *CARB, 2014 Update, May 2014, p. 4.*

<sup>34</sup> *CARB, 2014 Update, May 2014, p. 34.*

<sup>35</sup> *CARB, 2014 Update, May 2014, p. 6.*

<sup>36</sup> *CARB, First Update to the Climate Change Scoping Plan, May 2014, p. 32.*

vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

The First Update discussed new residential and commercial building energy efficiency improvements, specifically identifying progress toward zero net energy buildings as an element of meeting mid-term and long-term GHG reduction goals. The First Update expressed CARB's commitment to working with the California Public Utilities Commission (CPUC) and California Energy Commission (CEC) to facilitate further achievements in building energy efficiency.

In December 2017, CARB adopted the 2017 Update. The 2017 Update builds upon the successful framework established by the 2008 Climate Change Scoping Plan and the First Update while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health. The 2017 Update includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade program, which constraints and reduces emissions at covered sources.<sup>37</sup>

*(d) Assembly Bill 197*

Assembly Bill 197 (AB 197), signed September 8, 2016, is a bill linked to SB 32 that prioritizes efforts to cut GHG emissions in low-income or minority communities. AB 197 requires CARB to make available, and update at least annually, on its website the emissions of GHGs, criteria pollutants, and toxic air contaminants for each facility that reports to CARB and air districts. In addition, AB 197 adds two Members of the Legislature to CARB as ex officio, non-voting members and also creates the Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature and the houses of the Legislature concerning the State's programs, policies, and investments related to climate change.

*(e) Cap-and-Trade Program*

The 2008 Climate Change Scoping Plan identified a cap-and-trade program as one of the strategies for California to reduce GHG emissions. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap are able to trade permits to emit GHGs within the overall limit. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG

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<sup>37</sup> CARB, *2017 Update, November 2017, p. 6.*



emissions to 1990 levels by the year 2020.<sup>38</sup> CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32 and the State Legislature extended the Program through 2030 with the adoption of Assembly Bill 398.

The Cap-and-Trade Program is designed to reduce GHG emissions from major sources, such as refineries and power plants, (deemed “covered entities”). “Covered entities” subject to the Cap-and-Trade Program are sources that emit more than 25,000 metric tons CO<sub>2</sub>e (MTCO<sub>2</sub>e) per year. Triggering of the 25,000 MTCO<sub>2</sub>e per year “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or MRR).

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or in part (if eligible) and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender an allowance for each MTCO<sub>2</sub>e of GHG they emit.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 and 2030 Statewide emission limits will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on a cumulative basis. As summarized by CARB in the First Update:

*The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced.<sup>39</sup>*

For example, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a commensurate reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions

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<sup>38</sup> *With continuation of the Cap-and-Trade Program, the State can achieve a 40-percent reduction target by 2030.*

<sup>39</sup> *CARB, 2014 Update, May 2014, p. 86.*

is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. 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. Thus, the Cap-and-Trade Program assures that California will meet its GHG emissions reduction mandates:

*The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the “capped sectors.” Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap.<sup>40</sup> [...]*

*[T]he Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions.<sup>41</sup>*

Overall, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions.<sup>42</sup>

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<sup>40</sup> CARB, *First Update to the Climate Change Scoping Plan*, May 2014, p. 88.

<sup>41</sup> CARB, *First Update to the Climate Change Scoping Plan*, May 2014, pp. 86–87.

<sup>42</sup> Center for Climate and Energy Solutions, *California Cap-and-Trade*, [www.c2es.org/us-states-regions/key-legislation/california-cap-trade](http://www.c2es.org/us-states-regions/key-legislation/california-cap-trade), accessed February 11, 2019.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-State or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.<sup>43</sup> Furthermore, the Cap-and-Trade Program also covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-State or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle-miles traveled (VMT) are covered by the Cap-and-Trade Program.

AB 398 was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade Program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

*(f) Energy-Related Sources*

*(i) Senate Bill 1078 (California Renewables Portfolio Standard)*

Senate Bill 1078 (SB 1078), which is also known as the California Renewables Portfolio Standard (RPS) program, required that 20 percent of the available energy supplies are from renewable energy sources by 2017. In 2006, SB 107 accelerated the 20 percent mandate to 2010. These mandates apply directly to investor-owned utilities. On April 12, 2011, Governor Brown signed into law SB 2X, which modified California's RPS program to require that both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. SB 2X also requires regulated sellers of electricity to meet an interim milestone of procuring 25 percent of their energy supply from certified renewable resources by 2016. These levels of reduction are consistent with the Los Angeles Department of Water and Power's (LADWP) commitment to achieve 35 percent renewables by 2020.

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<sup>43</sup> While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015.

In 2018, LADWP indicated that 30 percent of its electricity came from renewable resources in year 2017.<sup>44</sup> Therefore, under SB 2X, LADWP will increase its electricity from renewable resources by an additional 3 percent to comply with the RPS of 33 percent.

*(ii) Senate Bill 350*

Senate Bill 350 (SB 350), signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent by 2030; and (2) to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.<sup>45</sup>

*(iii) Senate Bill 100*

SB 100, signed September 10, 2018, is the 100 Percent Clean Energy Act of 2018. SB 100 updates the goals of California's Renewable Portfolio Standard and SB 350, as discussed above, to the following: achieve 50-percent renewable resources target by December 31, 2026, and achieve a 60-percent target by December 31, 2030. SB 100 also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.<sup>46</sup>

*(iv) Senate Bill 1368*

Senate Bill 1368 (SB 1368), signed September 29, 2006, is a companion bill to AB 32, which requires the CPUC and the CEC to establish GHG emission performance standards for the generation of electricity. These standards also generally apply to power that is generated outside of California and imported into the State. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting CARB to meet its mandate under AB 32. On January 25, 2007, the CPUC adopted an interim GHG Emissions Performance Standard, which is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have GHG emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO<sub>2</sub> per MWh. Furthermore, on May 23, 2007, the CEC adopted regulations that establish and implement an identical Emissions Performance Standard of 1,100 pounds of CO<sub>2</sub> per MWh (see CEC Order No. 07-523-7).

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<sup>44</sup> California Energy Commission, *LADWP's 2017 Power Content Label*.

<sup>45</sup> *Senate Bill 350 (2015–2016 Reg. Session) Stats 2015, ch. 547*.

<sup>46</sup> *Senate Bill 100 (2017–2018 Reg. Session\_ Stats 2018, ch. 312*.

(g) *Mobile Sources*

(i) *California Assembly Bill 1493 (Pavley I)*

AB 1493, passed in 2002, requires the development and adoption of regulations to achieve “the maximum feasible reduction of greenhouse gases” emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. CARB originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. On September 24, 2009, CARB adopted amendments to these “Pavley” regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016.<sup>47</sup> Although setting emission standards on automobiles is solely the responsibility of the USEPA, the federal CAA allows California to set State-specific emission standards on automobiles if the State first obtains a waiver from the USEPA. The USEPA granted California that waiver on July 1, 2009. A comparison between the AB 1493 standards and the Federal CAFE standards was completed by CARB and the analysis determined that California emission standards are 16 percent more stringent through the 2016 model year and 18 percent more stringent for 2020 model year.<sup>48</sup> CARB is also committed to further strengthening these standards beginning with 2020 model year vehicles to obtain a 45-percent GHG reduction in comparison to the 2009 model year.

(ii) *Executive Order S-1-07 (California Low Carbon Fuel Standard)*

Executive Order S-1-07, the LCFS (issued on January 18, 2007), requires a reduction of at least 10 percent in the carbon intensity of California’s transportation fuels by 2020. Regulatory proceedings and implementation of the LCFS are directed to CARB. CARB released a draft version of the LCFS in October 2008. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010; the LCFS became effective on the same day.

The development of the 2017 Update has identified LCFS as a regulatory measure to reduce GHG emission to meet the 2030 emissions target. In calculating statewide emissions and targets, the 2017 Update has assumed the LCFS be extended to an 18-percent reduction in carbon intensity beyond 2020. On September 27, 2018, CARB approved a rulemaking package that amended the LCFS to relax the 2020 carbon intensity reduction from 10 percent to 7.5 percent and to require a carbon intensity reduction of 20 percent by 2030.

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<sup>47</sup> CARB, *Clean Car Standards—Pavley, Assembly Bill 1493*, [www.arb.ca.gov/cc/ccms/ccms.htm](http://www.arb.ca.gov/cc/ccms/ccms.htm), last reviewed February 11, 2019.

<sup>48</sup> CARB, “*Comparison of Greenhouse Gas Reductions for all Fifty United States under CAFE Standards and ARB Regulations Adopted Pursuant to AB 1493*”, January 23, 2008.

*(iii) Advanced Clean Cars Regulations*

In 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015–2025.<sup>49</sup> The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (i.e., battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.<sup>50</sup> In March 2017, CARB voted unanimously to continue with the vehicle greenhouse gas emission standards and the ZEV program for cars and light trucks sold in California through 2025.<sup>51</sup>

*(iv) Senate Bill 375*

Acknowledging the relationship between land use planning and transportation sector GHG emissions, SB 375 was signed by Governor Schwarzenegger on September 30, 2008. This legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions would be achieved by, for example, locating employment opportunities close to transit. Under SB 375, each Metropolitan Planning Organization (MPO) is required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduce passenger VMT and trips so that the region will meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measures.

As required under SB 375, CARB is required to update regional GHG emissions targets every 8 years with the last update formally adopted in March 2018. As part of the 2018 update, CARB has adopted a passenger vehicle related GHG reduction target of 19 percent for 2035 for the SCAG region, which is more stringent than the previous reduction target of 13 percent for 2035.<sup>52</sup>

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<sup>49</sup> CARB, *California's Advanced Clean Cars Program*, [ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program](http://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program), accessed February 11, 2019.

<sup>50</sup> CARB, *California's Advanced Clean Cars Program*, [ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program](http://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program), accessed February 11, 2019.

<sup>51</sup> CARB, *News Release: CARB finds vehicle standards are achievable and cost-effective*, [ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective](http://ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective), accessed February 11, 2019.

<sup>52</sup> CARB, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*.

*(v) Senate Bill 743*

Governor Brown signed SB 743 in 2013, which creates a process to change the way that transportation impacts are analyzed under CEQA. Specifically, SB 743 requires the Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) methodology for evaluating transportation impacts. Particularly within areas served by transit, the required alternative criteria must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.”<sup>53</sup> Measurements of transportation impacts may include “vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.”<sup>54</sup>

*(h) Building Standards**(i) California Appliance Efficiency Regulations (Title 20, Sections 1601 through 1608)*

The 2014 Appliance Efficiency Regulations, adopted by the CEC, include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

*(ii) California Building Energy Efficiency Standards (Title 24, Part 6)*

California’s Energy Efficiency Standards for Residential and Nonresidential Buildings, located at Title 24, Part 6 of the California Code of Regulations and commonly referred to as “Title 24,” were established in 1978 in response to a legislative mandate to reduce California’s energy consumption. Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.<sup>55</sup> The CEC adopted the 2016 Title 24 standards, which became effective on January 1, 2017, and are applicable to the Project. The 2016 standards continue to improve upon the previous 2013 Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.<sup>56</sup> Compliance with California’s Energy Efficiency Standards is enforced through the building permit process.

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<sup>53</sup> *Public Resources Code Section 21099(b)(1)*

<sup>54</sup> *Ibid.*

<sup>55</sup> *CEC, 2016 Building Energy Efficiency Standards, [www.energy.ca.gov/title24/2016standards/](http://www.energy.ca.gov/title24/2016standards/), accessed February 11, 2019.*

<sup>56</sup> *CEC, 2016 Building Energy Efficiency Standards, [www.energy.ca.gov/title24/2016standards/](http://www.energy.ca.gov/title24/2016standards/), accessed February 11, 2019.*

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*(iii) California Green Building Standards (CALGreen Code)*

The most recent update to the California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. Most mandatory measure changes in the 2016 CALGreen Code from the previous 2013 CALGreen Code were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicles chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional electric vehicle charging space requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification.<sup>57</sup> For nonresidential mandatory measures, the table (Table 5.106.5.3.3) identifying the number of required EV charging spaces has been revised in its entirety.<sup>58</sup> Compliance with the CALGreen Code is enforced through the building permit process.

*(i) Senate Bill 97*

On June 19, 2008, the Governor's Office of Planning and research (OPR) released a technical advisory on addressing climate change. This guidance document outlines suggested components to CEQA disclosure, including quantification of GHG emissions from a project's construction and operation; determination of significance of the project's impact to climate change; and if the project is found to be significant, the identification of suitable alternatives and mitigation measures.

SB 97, passed in August 2007, is designed to work in conjunction with CEQA and AB 32. SB 97 requires OPR to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including, but not limited to, the effects associated with transportation and energy consumption. The Draft Guidelines Amendments for Greenhouse Gas Emissions (Guidelines Amendments) were adopted on December 30, 2009, and address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment.

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<sup>57</sup> *California Building Standards Commission, 2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 4—Residential Mandatory Measures, effective January 1, 2017.*

<sup>58</sup> *California Building Standards Commission, 2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 5—Nonresidential Mandatory Measures, effective January 1, 2017.*



However, neither a threshold of significance nor any specific mitigation measures are included or provided in the Guidelines Amendments.<sup>59</sup> The Guidelines Amendments require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The Guidelines Amendments give discretion to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. Furthermore, the Guidelines Amendments identify three factors that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
3. The extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions.<sup>60</sup>

The administrative record for the Guidelines Amendments also clarifies “that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of California Environmental Quality Act’s requirements for cumulative impact analysis.”<sup>61</sup>

The California Natural Resources Agency is required to periodically update the Guidelines Amendments to incorporate new information or criteria established by CARB pursuant to AB 32. SB 97 applies retroactively to any environmental impact report (EIR), negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized.

*(j) Center for Biological Diversity v. California Department of Fish and Wildlife*

The California Supreme Court’s decision published on November 30, 2015, in the *Center for Biological Diversity v. California Department of Fish and Wildlife* (Case No. 217763) (also known as the “Newhall Ranch Case”) reviewed the methodology used to

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<sup>59</sup> See 14 Cal. Code Regs. §§ 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).

<sup>60</sup> 14 Cal. Code Regs. § 15064.4(b).

<sup>61</sup> Letter from Cynthia Bryant, Director of the Governor’s Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.

analyze GHG emissions in an EIR prepared for a project that proposed 20,885 dwelling units with 58,000 residents on 12,000 acres of undeveloped land in a rural area of the City of Santa Clara. The EIR used a “business as usual” (BAU) approach to determine whether the project would impede the state’s compliance with statutory emissions reduction mandate established by the AB 32 Scoping Plan. The Court did not invalidate the BAU approach but did hold that “the Scoping Plan nowhere related that *statewide* level of reduction effort to the percentage of reduction that would or should be required from *individual projects* and nothing DFW or Newhall have cited in the administrative record indicates the required percentage reduction from business as usual is the same for an individual project as for the entire state population and economy.”<sup>62</sup>

The California Supreme Court suggested regulatory consistency as a pathway to compliance, by stating that a lead agency might assess consistency with AB 32’s goal in whole or in part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities. The Court stated that a lead agency might assess consistency with AB 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities, including statewide programs and local climate action plans or GHG emissions reduction plans. This approach is consistent with CEQA Guidelines Section 15064, which provides that a determination that an impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including plans or regulations for the reduction of GHG emissions. The Court also suggested: “A lead agency may rely on existing numerical thresholds of significance for greenhouse gas emissions” (bright line threshold approach) if supported by substantial evidence.

### (3) Regional

#### (a) South Coast Air Quality Management District

The South Coast Air Quality Management District (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 (AQMP). 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;

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<sup>62</sup> *Center for Biological Diversity v. California Department of Fish and Wildlife* (Case No. 217763), p. 20.

- 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, the SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.<sup>63</sup> 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 MTCO<sub>2e</sub> per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO<sub>2e</sub> per year would be assumed to have a less-than-significant impact on climate change. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 MTCO<sub>2e</sub> per year for stationary source/industrial projects where the SCAQMD is the lead agency. However, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects such as commercial/residential projects; the proposed commercial/residential thresholds were never formally adopted.

*(b) Southern California Association of Governments*

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS) on April 7, 2016.<sup>64</sup> The 2016–2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012–2035 RTP/SCS. These foundational policies, which guided the development of the 2016–2040 RTP/SCS’s strategies for land use, include the following:

- Identify regional strategic areas for infill and investment;
- Structure the plan on a three-tiered system of centers development,<sup>65</sup>

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<sup>63</sup> SCAQMD, *Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008, Attachment E*.

<sup>64</sup> SCAG, *Final 2016–2040 RTP/SCS*.

<sup>65</sup> Complete language: “Identify strategic centers based on a three-tiered system of existing, planned and potential relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment.” A more detailed description of these strategies and policies can be found on pp. 90–92 of the SCAG 2008 Regional Transportation Plan, adopted in May 2008.

- Develop “Complete Communities”;
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat; and
- Incorporate local input and feedback on future growth.

The 2016–2040 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, the 2016–2040 RTP/SCS draws a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development and economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more.

The 2016–2040 RTP/SCS indicates the SCAG region was home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs.<sup>66</sup> By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas<sup>67</sup> (HQTAs) will account for 3 percent of regional total land but are projected to accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040. The 2016–2040 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region’s HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

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<sup>66</sup> *The SCAG 2016–2040 RTP/SCS is based on year 2012 demographic data with growth forecasts developed for 2020, 2035, and 2040.*

<sup>67</sup> *Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.*

The 2016–2040 RTP/SCS is expected to reduce per capita transportation emissions by 8 percent by 2020 and 18 percent by 2035. This level of reduction would meet and exceed the region’s GHG targets set by CARB of 8 percent per capita by 2020 and 13 percent per capita by 2035.<sup>68</sup> Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS’s GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.<sup>69</sup> The 2016–2040 RTP/SCS would result in an estimated 21 percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.

Subsequent to adoption of the 2016 RTP/SCS, CARB adopted in 2018 a new target requiring a 19-percent decrease in VMT for the SCAG region by 2035. It is expected that this new target will be incorporated into the next RTP/SCS. The 2016 RTP/SCS and/or the next RTP/SCS are therefore expected to fulfill and exceed SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.

#### (4) Local

##### (a) *City of Los Angeles Green LA Action Plan/Climate LA*

The City of Los Angeles began addressing the issue of global climate change by publishing *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming* (LA Green Plan) in 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities. According to the LA Green Plan, the City is committed to the goal of reducing emissions of CO<sub>2</sub> to 35 percent below 1990 levels by year 2030. To achieve this, the City has been implementing the following:

- Increase the generation of renewable energy;
- Improve energy conservation and efficiency; and

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<sup>68</sup> SCAG, *Final 2016–2040, RTP/SCS, Executive Summary*, p. 8, April 2016.

<sup>69</sup> SCAG, *Final Program Environmental Impact Report for 2016–2040, RTP/SCS*, April 2016, Figure 3.8.4-1.

- Change transportation and land use patterns to reduce dependence on automobiles.<sup>70</sup>

To facilitate implementation of the LA Green Plan, the City adopted the Los Angeles Green Building Code, as discussed below. In addition, LADWP will continue to implement programs to emphasize water conservation and will also pursue securing alternative supplies, including recycled water and storm water capture. Furthermore, the City implemented the Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles (RENEW LA) plan to meet solid waste reduction goals by expanding recycling to multifamily dwellings, commercial establishments, and restaurants. Under the RENEW LA plan, the City is also developing facilities that will convert solid waste to energy without incineration.<sup>71</sup> These measures would serve to reduce overall emissions from the City.

In 2008, the City released an implementation program for the LA Green Plan referred to as ClimateLA, which provides detailed information about each action item discussed in the LA Green Plan framework.<sup>72</sup> Action items range from harnessing wind power for electricity production and energy efficiency retrofits in City buildings, to converting the City's fleet vehicles to cleaner and more efficient models, and reducing water consumption. ClimateLA is a living document, reflecting a process of ongoing learning and continuous improvement as technology advances and City departments develop expertise in the methods of lowering GHG emissions.

#### *(b) City of Los Angeles Green Building Code*

On December 15, 2011, the Los Angeles City Council approved Ordinance No. 181,481, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 to incorporate various provisions of the 2010 CALGreen Code. On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which further amended LAMC Chapter IX by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filed on or after January 1, 2017 must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) non-residential and high-rise

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<sup>70</sup> *City of Los Angeles, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, May 2007.*

<sup>71</sup> *City of Los Angeles, Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles, June 2011.*

<sup>72</sup> *City of Los Angeles, ClimateLA, (2008)*

residential buildings; and (3) additions and alterations to non-residential and high-rise residential buildings.

*(c) City of Los Angeles General Plan*

The City does not have a General Plan Element specific to global warming/climate change and GHG emissions. However, the following Air Quality Element goals, objectives, and policies, would also serve to reduce GHG emissions and are relevant to the Project:

*Goal 2—Less reliance on single-occupant vehicles with fewer commute and non-work trips.*

Objective 2.1—It is the objective of the City of Los Angeles to reduce work trips as a step toward attaining trip reduction objectives necessary to achieve regional air quality goals.

Policy 2.1.1—Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce Vehicle Trips and/or Vehicle Miles Traveled (VMT) as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.

*Goal 4—Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.*

Objective 4.1—It is the objective of the City of Los Angeles to include regional attainment of ambient air quality standards as a primary consideration in land use planning.

Policy 4.1.1—Coordinate with all appropriate regional agencies in the implementation of strategies for the integration of land use, transportation, and air quality policies.

Objective 4.2—It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Policy 4.2.2—Improve accessibility for the City's residents to places of employment, shopping centers, and other establishments.

Policy 4.2.3—Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.

Policy 4.2.4—Require that air quality impacts be a consideration in the review and approval of all discretionary projects.

Policy 4.2.5—Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.

*(d) City of Los Angeles Sustainable City pLAN*

On April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAN which includes both short-term and long-term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. Specific targets include the construction of new housing units within 1,500 feet of transit by 2017, reducing vehicle miles traveled per capita by 5 percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Sustainable pLAN will be updated every four years.

*(e) Traffic Study Policies and Procedures*

The City of Los Angeles Department of Transportation (LADOT) has developed the Transportation Impact Study Guidelines (TISG) [December 2016] to provide the public, private consultants, and City staff with standards, guidelines, objectives, and criteria to be used in the preparation of a transportation impact study. The TISG is consistent with the City's goals to emphasize the importance of sustainability, smart growth, and reduction of GHG emissions in addition to traditional traffic flow considerations when evaluating and mitigating impacts to the transportation system as a result of land use policy decisions. The TISG prioritizes transportation demand management strategies and multi-modal strategies over automobile-centric solutions when mitigating project-related impacts to the City's transportation system.

## **d. Existing Conditions**

### **(1) Existing Statewide GHG Emissions**

GHGs are the result of both natural and human-influenced activities. Regarding human-influenced activities, motor vehicle travel, consumption of fossil fuels for power generation, industrial processes, heating and cooling, landfills, agriculture, and wildfires are the primary sources of GHG emissions. Without human intervention, Earth maintains an approximate balance between the emission of GHGs into the atmosphere and the storage of GHGs in oceans and terrestrial ecosystems. Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have contributed to the rapid increase in atmospheric levels of GHGs over the last 150 years. As reported by the CEC, California contributes approximately 1 percent of



global and 8.2 percent of national GHG emissions.<sup>73</sup> California represents approximately 12 percent of the national population. Approximately 80 percent of GHGs in California are CO<sub>2</sub> produced from fossil fuel combustion. The current California GHG inventory compiles Statewide anthropogenic GHG emissions and carbon sinks/storage from years 2000 to 2016.<sup>74</sup> It includes estimates for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>. The GHG inventory for California for years 2010 through 2016 is presented in Table IV.D-3 on page IV.D-34. As shown in Table IV.D-3, the GHG inventory for California in 2016 was 429.35 million MTCO<sub>2e</sub>. For comparison purposes, CARB estimates that the natural gas leak at Aliso Canyon released approximately 2.4 million MTCO<sub>2e</sub> from November 7, 2015, to February 13, 2016.<sup>75</sup>

## (2) Existing Project Site Emissions

The Project Site is currently occupied by three structures, including a two-story Barnes & Noble bookstore located along the northeast corner of the Project Site, near the Maxella Avenue and Glencoe Avenue intersection; a single-story building providing a variety of retail uses located generally within the southern portion of the Project Site, along Glencoe Avenue; a two-story commercial and retail building located generally within the western portion of the Project Site; and surface parking and circulation areas. Vehicular access to the Project Site is currently available via driveways on Maxella Avenue and Glencoe Avenue. Pedestrian access is available from the vehicular access points and from other areas along Maxella Avenue and Glencoe Avenue.

Area source emissions are generated by maintenance equipment, landscape equipment, and use of products that contain solvents. Energy source emissions are associated with building natural gas usage and electricity usage at the Project Site. In addition, mobile source emissions from the existing uses are generated by motor vehicle trips to and from the Project Site. Stationary source emissions are generated by the existing emergency generators on the Project Site. Furthermore, solid waste and water/wastewater emissions are generated by the Project's solid waste and water/waste water usage. Table IV.D-4 on page IV.D-36 presents the GHG emissions associated with the existing land uses.

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<sup>73</sup> *California Energy Commission, California Energy Commission—Tracking Progress, Greenhouse Gas Emission Reductions, last updated December 2018.*

<sup>74</sup> *A carbon inventory identifies and quantifies sources and sinks of greenhouse gases. Sinks are defined as a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period.*

<sup>75</sup> *California Air Resources Board, Aliso Canyon Natural Gas Leak—Preliminary Estimate of Greenhouse Gas Emissions, February 13, 2016.*

**Table IV.D-3  
California GHG Inventory  
(million metric tons CO<sub>2</sub>e)**

	2010	2011	2012	2013	2014	2015	2016
<b>Transportation</b>	165.07	161.51	161.22	160.90	162.28	166.14	169.38
<i>On Road</i>	151.20	148.03	147.71	147.07	148.04	151.52	154.64
Passenger Vehicles	114.13	111.37	111.77	111.52	112.20	116.33	119.03
Heavy Duty Trucks	37.07	36.65	35.93	35.55	35.83	35.19	35.62
<i>Ships &amp; Commercial Boats</i>	3.66	3.52	3.43	3.42	3.49	3.42	3.24
<i>Aviation (Intrastate)</i>	3.84	3.73	3.75	3.93	3.90	4.22	4.44
<i>Rail</i>	2.24	2.38	2.38	2.38	2.38	2.38	2.37
<i>Off Road</i>	2.03	2.13	2.23	2.33	2.43	2.53	2.63
<i>Unspecified</i>	2.09	1.72	1.71	1.77	2.04	2.07	2.07
<i>Percent of Total Emissions</i>	37%	36%	36%	36%	37%	38%	39%
<b>Electric Power</b>	90.34	88.06	95.09	89.65	88.24	83.67	68.58
<i>In-State Generation</i>	46.75	41.20	51.03	49.47	51.72	49.93	42.30
Natural Gas	40.59	35.92	45.77	45.66	46.43	45.16	38.28
Other Fuels	5.05	4.03	4.44	2.91	4.40	3.65	2.55
Fugitive and Process Emissions	1.10	1.25	0.82	0.90	0.90	1.13	1.48
<i>Imported Electricity</i>	43.59	46.86	44.07	40.17	36.51	33.74	26.28
<i>Unspecified Imports</i>	13.45	15.52	17.48	11.82	13.44	11.21	9.68
<i>Specified Imports</i>	30.14	31.34	26.59	28.35	23.07	22.52	16.60
<i>Percent of Total Emissions</i>	20%	20%	21%	20%	20%	19%	16%
<b>Commercial and Residential</b>	45.05	45.50	42.89	43.54	37.37	37.94	39.36
<i>Residential Fuel Use</i>	29.19	29.64	27.34	28.14	22.87	23.29	24.20
Natural Gas	26.99	27.51	25.76	26.52	21.58	21.90	22.80
Other Fuels	2.21	2.13	1.58	1.62	1.28	1.39	1.40
<i>Commercial Fuel Use</i>	13.58	13.71	13.41	13.30	12.51	12.67	12.92
Natural Gas	11.17	11.33	11.25	11.28	10.39	10.50	10.89
Other Fuels	2.41	2.38	2.16	2.02	2.12	2.16	2.03
<i>Commercial Cogeneration Heat Output</i>	0.92	0.78	0.76	0.71	0.58	0.56	0.81
<i>Other Commercial and Residential</i>	1.36	1.37	1.38	1.40	1.41	1.42	1.43
<i>Percent of Total Emissions</i>	10%	10%	10%	10%	8%	9%	9%
<b>Industrial</b>	91.50	90.94	91.07	93.73	93.96	91.58	89.61
<i>Refineries</i>	30.46	30.12	29.88	29.22	29.40	28.21	29.61
<i>General Fuel Use</i>	17.93	18.78	18.91	19.31	19.87	19.23	18.53
Natural Gas	13.46	14.50	14.48	14.36	15.56	14.79	14.99
Other Fuels	4.47	4.28	4.43	4.94	4.31	4.45	3.53
<i>Oil &amp; Gas Extraction<sup>a</sup></i>	16.80	16.73	16.73	19.11	19.47	19.58	17.93
Fuel Use	15.01	14.91	14.87	16.99	17.18	17.22	15.66
Fugitive Emissions	1.80	1.82	1.86	2.12	2.29	2.36	2.27
<i>Cement Plants</i>	5.57	6.14	6.92	7.20	7.61	7.56	7.60
Clinker Production	3.46	4.08	4.65	4.93	5.27	5.17	5.15
Fuel Use	2.11	2.07	2.26	2.28	2.34	2.39	2.45

**Table IV.D-3 (Continued)**  
**California GHG Inventory**  
**(million metric tons CO<sub>2</sub>e)**

	2010	2011	2012	2013	2014	2015	2016
<i>Cogeneration Heat Output</i>	12.61	11.15	10.81	10.99	9.64	8.98	8.00
<i>Other Process Emissions</i>	8.13	8.02	7.81	7.90	7.98	8.01	7.95
<i>Percent of Total Emissions</i>	20%	20%	20%	21%	21%	21%	21%
<b>Recycling and Waste</b>	8.37	8.47	8.49	8.52	8.59	8.73	8.81
<i>Landfills<sup>b</sup></i>	8.11	8.19	8.20	8.22	8.28	8.40	8.47
<i>Composting</i>	0.26	0.27	0.29	0.30	0.31	0.33	0.34
<i>Percent of Total Emissions</i>	2%	2%	2%	2%	2%	2%	2%
<b>High Global Warming Potential</b>	13.52	14.54	15.54	16.65	17.70	18.93	19.78
<i>Ozone Depleting Substance Substitutes</i>	13.20	14.21	15.25	16.38	17.42	18.37	19.24
<i>Electricity Grid SF6 Losses<sup>c</sup></i>	0.24	0.25	0.24	0.18	0.14	0.42	0.37
<i>Semiconductor Manufacturing<sup>b</sup></i>	0.08	0.08	0.06	0.08	0.14	0.14	0.16
<i>Percent of Total Emissions</i>	3%	3%	3%	4%	4%	4%	5%
<b>Agriculture<sup>d</sup></b>	34.27	34.89	36.08	34.61	35.95	34.41	33.84
<i>Livestock</i>	24.00	23.84	24.47	23.49	23.81	23.10	22.99
<i>Enteric Fermentation (Digestive Process)</i>	12.13	11.98	12.10	11.78	11.85	11.40	11.35
<i>Manure Management</i>	11.86	11.86	12.38	11.71	11.96	11.70	11.64
<i>Crop Growing &amp; Harvesting</i>	7.50	7.40	7.73	7.42	7.48	6.91	6.89
<i>Fertilizers</i>	5.78	5.67	5.93	5.65	5.72	5.28	5.25
<i>Soil Preparation and Disturbances</i>	1.64	1.65	1.73	1.69	1.68	1.56	1.56
<i>Crop Residue Burning</i>	0.08	0.08	0.08	0.08	0.08	0.08	0.08
<i>General Fuel Use</i>	2.77	3.65	3.88	3.71	4.66	4.39	3.95
<i>Diesel</i>	1.96	2.52	2.47	2.53	3.54	3.66	3.19
<i>Natural Gas</i>	0.65	0.66	0.70	0.69	0.63	0.64	0.72
<i>Gasoline</i>	0.16	0.48	0.71	0.49	0.49	0.10	0.04
<i>Other Fuels</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Percent of Total Emissions</i>	8%	8%	8%	8%	8%	8%	8%
<b>Total Net Emissions</b>	448.11	443.91	450.38	447.59	444.10	441.40	429.35

<sup>a</sup> Reflects emissions from combustion of fuels plus fugitive emissions.

<sup>b</sup> These categories are listed in the Industrial sector of ARB's GHG Emission Inventory sectors.

<sup>c</sup> This category is listed in the Electric Power sector of ARB's GHG Emission Inventory sectors.

<sup>d</sup> Reflects use of updated USEPA models for determining emissions from livestock and fertilizers.

Source: California GHG Inventory for 2000–2016—by Category as Defined in the 2008 Climate Change Scoping Plan million tonnes of CO<sub>2</sub>e—(based upon IPCC Second Assessment Report's Global Warming Potentials).

**Table IV.D-4  
Existing (2017) Project Site Annual GHG Emissions Summary**

Source	Metric Tons of Carbon Dioxide Equivalent <sup>a</sup> (MTCO <sub>2e</sub> )
Area	<1
Energy	638
Mobile	2,146
Stationary	0
Solid Waste	53
Water/Wastewater Generation	67
Total Emissions	2,904
<p><sup>a</sup> CO<sub>2e</sub> was calculated using CalEEMod and the results are provided in Appendix B of this Draft EIR. Source: Eyestone Environmental, 2019.</p>	

### 3. Project Impacts

#### a. Thresholds of Significance

##### (1) State CEQA Guidelines Appendix G

In accordance with Appendix G of the State CEQA Guidelines (CEQA Guidelines), the Project would have a significant impact related to GHGs if it would:

***Threshold (a): Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;***

***Threshold (b): Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.***

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of project-related GHG emissions, including: the extent to which the project may increase or reduce GHG emissions; whether a project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs.

Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds

developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), as long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are by their very nature cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130(f)).<sup>76</sup> As a note, the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially lessen the cumulative problem within the geographic area of the project.<sup>77</sup> To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.<sup>78</sup> Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions."<sup>79</sup> Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

In the absence of any adopted numeric threshold, the significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. For this Project, as a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is the 2016-2040 RTP/SCS, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the State's long-term climate goals. This analysis also considers consistency with regulations or requirements

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<sup>76</sup> See, generally, CEQA Guidelines Section 15130(f); see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, dated April 13, 2009.

<sup>77</sup> 14 CCR Section 15064(h)(3).

<sup>78</sup> 14 CCR Section 15064(h)(3).

<sup>79</sup> 14 CCR Section 15064(h)(3).

adopted by the AB 32 *Climate Change Scoping Plan* and subsequent updates, the LA Green Plan/ClimateLA, and the Sustainable City pLAn.

## (2) SCAQMD Thresholds

As discussed above, the SCAQMD only has an interim GHG significance threshold of 10,000 MTCO<sub>2e</sub> per year for stationary source/industrial projects where the SCAQMD is the lead agency. This SCAQMD interim GHG significance threshold is not applicable to the Project as the Project is a residential/commercial project and the City of Los Angeles is the Lead Agency.

## (3) 2006 L.A. CEQA Thresholds Guide

The *L.A. CEQA Thresholds Guide* does not identify any criteria to evaluate GHG emissions impacts, because this guide was completed prior to enactment of SB 97 that required consideration of GHG emissions and impacts as part of the CEQA process. Thus, the potential for the Project to result in impacts from GHG emissions is based on the Appendix G thresholds. For the reasons set forth above, to answer both of the above Appendix G thresholds, the City will consider whether the project is consistent with AB 32 and SB 375 (through demonstration of conformance with the 2016–2040 RTP/SCS), the LA Green Plan/ClimateLA, and the Sustainable City pLAn. As discussed above, OPR has noted that lead agencies “should make a good-faith effort to calculate or estimate GHG emissions from a project.”<sup>80</sup> GHG emissions are quantified below, consistent with OPR guidelines.

## b. Methodology

Amendments to Section 15064.4 of the CEQA Guidelines were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. If a qualitative analysis is used, in addition to quantification, this section recommends certain qualitative factors that may be used in the determination of significance (i.e., extent to which the project may increase or reduce GHG emissions 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). The amendments do not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or

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<sup>80</sup> OPR *Technical Advisory*, p. 5.

suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see Section 15064.7(c)). The California Natural Resources Agency has also clarified that the CEQA Guidelines amendments focus on the effects of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see Section 15064(h)(3)).<sup>81</sup>

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions. Nor have the SCAQMD, OPR, CARB, CAPCOA, or any other state or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG-related impacts on the environment.

Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The primary purpose of quantifying the Project's GHG emissions is to satisfy State CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of the Project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the Project.

### (1) Consistency with Plans

The Project's GHG impacts are evaluated by assessing the Project's consistency with applicable statewide, regional, and local GHG reduction plans and strategies. As discussed previously, the City has established goals and actions to reduce the generation and emission of GHGs from both public and private activities in the LA Green Plan and the Mayor's Sustainable City pLAN.

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<sup>81</sup> See generally *California Natural Resources Agency, Final Statement of Reasons for Regulatory Action (December 2009)*, pp. 11-13, 14, 16; see also *Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, April 13, 2009*. Available at <https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/C01.pdf>. Accessed February 11, 2019 .

The OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Although the City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan, the City has adopted a number of plans to help reduce GHG emissions, including the LA Green Plan, Sustainable City pLAN, and Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. In addition, the California CAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in AB 32 and Executive Order S-3-05. On a statewide level, the *Climate Change Scoping Plan* provides measures to achieve AB 32 targets. On a regional level, the SCAG 2016–2040 RTP/SCS contains measures to achieve VMT reductions required under SB 375. Thus, if the Project complies with these plans, policies, regulations, and requirements, the Project would result in a less than significant impact because it would be consistent with the overarching state, regional, and local plans for GHG reduction.

A consistency analysis is provided below and describes the Project's compliance with or exceedance of performance-based standards included in the regulations outlined in the applicable portions of the *Climate Change Scoping Plan*, 2016–2040 RTP/SCS, LA Green Plan/ClimateLA, and the Sustainable City pLAN.

## (2) Quantification of Emissions

In view of the above considerations, this EIR quantifies the Project's total annual GHG emissions for informational purposes, taking into account the GHG emission reduction features that would be incorporated into the Project's design.

This EIR quantifies the Project's annual GHG emissions and compares them to a Project without Reduction Features scenario, as defined by CARB's most updated projections for AB/SB 32.<sup>82</sup> This comparison is included herein for informational purposes only, including in order to disclose the relative carbon efficiency of the Project and to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. The Project without

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<sup>82</sup> *The comparison to a so-called BAU scenario is not used as a threshold of significance, but is used to provide information and a quantitative metric to measure the Project's GHG emissions and level of reductions from Project Design Features and characteristics. See Center for Biological Diversity v. California Department of Fish and Wildlife (2015) 62 Cal.4th 204. While the California Supreme Court approved the methodology analyzing the significance of the project's GHG emissions in terms of reductions from projected BAU emissions consistent with AB 32's statewide reductions mandate, it held the GHG analysis lacked supporting substantial evidence and a cogent explanation correlating the project-specific reductions to AB 32's mandated state-wide reductions so as to demonstrate consistency with the latter's goals under the approved methodology.*



Reduction Features scenario does not account for energy efficiency measures that would exceed the Title 24 Building Standards Code or trip reductions from the co-location of uses and the availability of public transportation within 0.25 mile. However, the Project without Reduction Features does take into account certain regulatory measures included in the 2008 Climate Change Scoping Plan and subsequent updates, 2016–2040 RTP/SCS, LA Green Plan/Climate LA, and the Sustainable City pLAN.<sup>83</sup>

### (3) Project GHG Emissions

The California Climate Action Registry (Climate Registry) General Reporting Protocol provides basic procedures and guidelines for calculating and reporting GHG emissions from a number of general and industry-specific activities.<sup>84</sup> The General Reporting Protocol is based on the “Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard” developed by the World Business Council for Sustainable Development and the World Resources Institute through “a multi-stakeholder effort to develop a standardized approach to the voluntary reporting of GHG emissions.”<sup>85</sup> Although no numerical thresholds of significance have been developed, and no specific protocols are available for land use projects, the General Reporting Protocol provides a basic framework for calculating and reporting GHG emissions from a project. The information provided in this section is consistent with the General Reporting Protocol’s reporting requirements. Further discussion of the GHG methodology is included in Appendix B of this Draft EIR.

The General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. These categories include the following:

- Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
- Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.<sup>86</sup>

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<sup>83</sup> *The CalEEMod model does not account for all regulatory measures in the Climate Change Scoping Plan. However, the analysis does take into account reductions due to Pavley and LCFS as discussed in further detail below.*

<sup>84</sup> *California Climate Action Registry, General Reporting Protocol Version 3.1, January 2009.*

<sup>85</sup> *California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009.*

<sup>86</sup> *Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.*

The General Reporting Protocol provides a range of basic calculation methods. However, the General Reporting Protocol calculations are typically designed for existing buildings or facilities. These retrospective calculation methods are not directly applicable to planning and development situations where buildings do not yet exist.

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.<sup>87</sup> For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, OPR has noted that lead agencies “should make a good-faith effort, based on available information, to calculate, model, or estimate... GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.”<sup>88</sup> Therefore, direct and indirect emissions have been calculated for the Project.

A fundamental difficulty in the analysis of GHG emissions is the global nature of the existing and cumulative future conditions. Changes in GHG emissions can be difficult to attribute to a particular planning program or project because the planning effort or project may cause a shift in the locale for some type of GHG emissions (such as indirect emissions associated with vehicular emissions associated with the project’s traffic generation), rather than causing “new” GHG emissions (such as installation of natural gas-fired appliances or indirect emissions from a remote power source that delivers electricity to the new end user at a new development project). As a result there is frequently an inability to conclude whether a project’s GHG emissions represent a net global increase, reduction, or no change in GHGs that would exist if the project were not implemented. The analysis of the Project’s GHG emissions is particularly conservative in that it assumes all of the GHG emissions are new additions to the atmosphere.

The California Emissions Estimator Model (CalEEMod) is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California, which provided data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) to account for local requirements and conditions. The model is considered

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<sup>87</sup> CARB, *Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007.*

<sup>88</sup> OPR *Technical Advisory*, p. 5.

by the SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.<sup>89</sup>

*(a) Construction*

The Project's construction emissions were calculated using CalEEMod Version 2016.3.1. Details of the modeling assumptions and emission factors are provided in Appendix B of this Draft EIR. CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the construction assumptions included in Appendix B of this Draft EIR and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod.

The calculations of the emissions generated during Project construction activities reflect the types and quantities of construction equipment and construction-related automobiles and truck trips that would occur to remove existing buildings and pavement, grade and excavate the Project Site, construct the proposed building and related improvements, and plant new landscaping within the Project Site.

As impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. In accordance with SCAQMD's guidance, GHG emissions from construction were amortized (i.e., averaged annually) over the lifetime of the Project. SCAQMD defines the lifetime of a project as 30 years.<sup>90</sup> Therefore, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

*(b) Operation*

Similar to construction, the SCAQMD-recommended CalEEMod is used to calculate potential GHG emissions generated by new land uses on the Project Site, including area sources, electricity, natural gas, mobile sources, stationary sources (i.e., emergency generators), solid waste generation and disposal, and water usage/wastewater generation.

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<sup>89</sup> California Air Pollution Control Officers Association, *California Emissions Estimator Model, CalEEMod™*, [www.caleemod.com](http://www.caleemod.com), accessed February 11, 2019.

<sup>90</sup> SCAQMD, *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, 2008*.

Area source emissions include landscaping equipment, which are based on the size of the land uses (e.g., square footage or dwelling unit), the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted.

GHG emissions associated with electricity usage are based on the size of the land uses, the electrical demand factors for the land uses, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. As with electricity, the emissions of GHGs associated with natural gas combustion are based on the size of the land uses, the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu), the GHG emission factors for natural gas combustion, and the GWP values for the GHGs emitted.

Mobile source emission calculations are calculated based on an estimate of the Project's total vehicle miles travelled (VMT), which is derived from the trip generation rates provided in the Transportation Study prepared for the Project, included as Appendix M of this Draft EIR.<sup>91</sup> The CalEEMod-derived VMT values account for the daily and seasonal variations in trip frequency and length associated with new residential, employee and visitor trips to and from the Project Site and other activities that generate a vehicle trip.

Stationary source emissions are based on proposed stationary sources (i.e., emergency generators) that would be provided on the Project Site.

The emissions of GHGs associated with solid waste disposal are based on the Project's land uses, the waste disposal rate for the land uses, the waste diversion rate, the GHG emission factors for solid waste decomposition, and the GWP values for the GHGs emitted.

The GHG emissions related to water usage and wastewater generation are based on the Project's land uses, the water demand factors, the electrical intensity factors for water supply, treatment, distribution, and for electrical intensity factors for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted.

The GHG emissions calculations for the Project include credits or reductions for implementation of relevant project design features set forth in this Draft EIR. The analysis of Project GHG emissions at buildout also takes into account actions and mandates already approved and expected to be in force by Project buildout (e.g., Pavley I Standards, full implementation of California's Statewide Renewables Portfolio Standard beyond current

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<sup>91</sup> *Linscott, Law, & Greenspan, Engineers, Transportation Impact Study, October 30, 2017.*

levels of renewable energy, and the California LCFS). With regard to the full implementation of California's Statewide Renewables Portfolio Standard, the Project assumes that 33 percent of LADWP's energy comes from renewable sources of energy. In addition, CalEEMod accounts for 2016 Title 24. It should be noted that GHG reductions due to LCFS are currently not incorporated into CalEEMod. Calculations demonstrating LCFS reductions were performed outside of CalEEMod using CARB methodology and is presented in Appendix B of this DEIR.<sup>92</sup> In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips, a decrease in the number of Project-generated trips as a result of Project characteristics (e.g., close proximity to transit) would provide a proportional reduction in mobile source GHG emissions compared to a generic project without such locational benefits. Calculation of Project emissions conservatively did not include actions and mandates that are not already in place but are expected to be enforced by Project buildout (e.g., Pavley II, which could further reduce GHG emissions from use of light-duty vehicles by 2.5 percent). Similarly, emissions reductions regarding cap-and-trade were not included in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at buildout because the state is expected to continue to implement policies and programs aimed at reducing GHG emissions from the land use and transportation sectors to meet the State's long-term climate goals.

There are various methodologies to quantify the efficiency of the GHG reduction measures provided for in the plans and policies. The Project without Reduction Features scenario is one such approach, which is being used in this EIR. Consistent with evolving scientific knowledge, approaches to GHG quantification may continue to evolve in the future. To that end, another method of analyzing the efficacy of GHG emission reductions—thereby providing further support for the Project's consistency with the applicable GHG reduction plans and policies—is to compare the Project's emissions to a GHG efficiency target. A methodology based on an efficiency target analyzes a project's GHG emissions on a per service population basis to determine if the project achieves the identified level of GHG efficiency. Such an analysis for the Project is presented for informational purposes only in Appendix B of this Draft EIR.

## **c. Analysis of Project Impacts**

### **(1) Project Design Features**

The following project design features are proposed with regard to GHG emissions:

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<sup>92</sup> CARB, *Low Carbon Fuel Standard (LCFS)*, [www.arb.ca.gov/msprog/clean\\_cars/clean\\_cars\\_ab1085/ghg\\_lcf reductions.xlsx](http://www.arb.ca.gov/msprog/clean_cars/clean_cars_ab1085/ghg_lcf reductions.xlsx), accessed February 11, 2019.

**Project Design Feature GHG-PDF-1:** Buildings shall be designed and constructed to incorporate environmentally sustainable design features equivalent to a minimum Silver certification under the U.S. Green Building Council's LEED® Rating System for new construction.

**Project Design Feature GHG-PDF-2:** The Project shall prohibit the installation of natural gas-powered hearths (fireplaces) in all residential units.

**Project Design Feature GHG-PDF-3:** The Project Applicant shall provide at least 20 percent of the total code-required parking spaces, but in no case less than one location, capable of supporting future electric vehicle supply equipment (EVSE). Plans shall indicate the proposed type and location(s) of EVSE and also include raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all electric vehicles (EVs) at all designated EV charging locations at their full rated amperage. Plan design shall be based upon Level 2 or greater EVSE at its maximum operating capacity. Only raceways and related components are required to be installed at the time of construction. When the application of the 20 percent results in a fractional space, round up to the next whole number. A label stating "EV CAPABLE" shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

**Project Design Feature GHG-PDF-4:** At least 5 percent of the total code-required parking spaces shall be further equipped with EV charging stations. Plans shall indicate the proposed type and location(s) of charging stations. Plan design shall be based on Level 2 or greater EVSE at its maximum operating capacity. When the application of the 5-percent requirement results in a fractional space, round up to the next whole number.

In addition, the Project would comply with all applicable state and local regulatory requirements, including the provisions set forth in the City's Green Building Ordinance, that directly or indirectly foster GHG reductions. The Project also would include water conservation and waste reduction measures as set forth in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure and Section IV.L.3, Utilities and Service Systems—Solid Waste, of this Draft EIR, respectively.

## (2) Project Impacts

***Threshold (a): Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?***

***Threshold (b): Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG?***

*(a) Consistency with Applicable Plans and Policies*

As explained above, compliance with applicable GHG emissions reduction plan would result in less-than-significant project and cumulative impacts. The following section describes the extent to which the Project complies with or exceeds the performance-based standards included in the regulations outlined in the 2008 Climate Change Scoping Plan and subsequent updates, the 2016-2040 RTP/SCS, the LA Green Plan/ClimateLA, and the Sustainable City pLAN. As shown herein, the Project would be consistent with the applicable GHG reduction plans and policies.

*(i) Climate Change Scoping Plan*

As previously discussed, the goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). In 2008, CARB approved the 2008 Climate Change Scoping Plan as required by AB 32.<sup>93</sup> In 2016, SB 32 was signed into law to include an emission reduction goal for the year 2030. The 2017 Update was updated to include 2030 targets specified in SB 32. The *2008 Climate Change Scoping Plan* has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The following discussion demonstrates how the pertinent reduction actions relate to and reduce Project-related GHG emissions.

The Project's GHG emissions are quantified further below, as shown in Table IV.D-10 on page IV.D-81. As shown in Table IV.D-10, the Project would result in an increase of 6,191 MTCO<sub>2e</sub> annually. The breakdown of emissions by source category shows approximately less than 1 percent from area sources, 41 percent from energy consumption, 40 percent from mobile sources, less than 1 percent from stationary sources, 2 percent from solid waste generation, 8 percent from water supply, treatment, and distribution, and 9 percent from construction. Provided in Table IV.D-5 on page IV.D-48 is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project would be consistent with or exceed reduction actions/strategies outlined in the 2008 Climate Change Scoping Plan and subsequent updates. The Scoping Plan was updated in 2014 (First Update) and in 2017 (Second Update) and builds upon the original Scoping Plan with new strategies and recommendations to achieve GHG reduction goals.<sup>94</sup> As discussed therein, the Project would be consistent with the GHG reduction-related actions and strategies of the 2008 Climate Change Scoping Plan and the First Update.

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<sup>93</sup> CARB approved the *Climate Change Proposed Scoping Plan* on December 11, 2008.

<sup>94</sup> CARB, *2014 Update*, May 2014, p. 4.

**Table IV.D-5  
Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<b>Energy (41 percent of project inventory)</b>		
<p><b>California Renewables Portfolio Standard (RPS) program:</b> Senate Bill 2X modified California’s RPS program to require that both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. California Senate Bill 2X also requires regulated sellers of electricity to meet an interim milestone of procuring 25 percent of their energy supply from certified renewable resources by 2016.</p>	<p>Los Angeles Department of Water and Power (LADWP)</p>	<p><b>Consistent.</b> LADWP’s commitment to achieve 35 percent renewables by 2020 would exceed the requirement under the RPS program of 33 percent renewables by 2020. In 2018, LADWP indicated that 30 percent of its electricity came from renewable resources in 2017.<sup>a</sup> As LADWP would provide electricity service to the Project Site, the Project would use electricity that is produced consistent with this performance-based standard. Electricity GHG emissions provided in Table IV.D-10 on page IV.D-81 assume that LADWP will receive at least 33 percent of its electricity from renewable sources by the year 2020 and 50 percent by the year 2030 (with a straight line interpolation for the Project buildout year of 2023), as required by SB 350, which is discussed below. Given LADWP’s progress toward meeting and exceeding the established targets as well as penalties for non-compliance, it is assumed LADWP will comply. As a note, the analysis conservatively does not include the updated carbon intensity for electricity generation as required by SB 100.</p>
<p><b>Senate Bill 350 (SB 350):</b> The Clean Energy and Pollution Reduction Act of 2015 increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by 2030 and also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.<sup>b</sup></p>	<p>State Energy Resources Conservation and Development Commission and LADWP</p>	<p><b>Consistent.</b> LADWP would be required to meet this performance-based standard. As LADWP would provide electricity service to the Project Site, the Project, by 2030, would use electricity consistent with this performance-based standard. Project buildout would occur in Year 2023 and, therefore, the estimated GHG emissions from electricity usage provided below conservatively do not include implementation of SB 350 with a compliance date of 2030. Electricity GHG emissions presented in Table IV.D-10 on page IV.D-81 would be further reduced by 17 percent by Year 2030 if the electricity provided to the Project Site by LADWP meets the requirements under SB 350. As a note, the Project conservatively does not include consistency with SB 100.</p> <p>Doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under the CCR, Title 24, Part 6 (consistency with this regulation is discussed below) and utility-sponsored programs such</p>



**Table IV.D-5 (Continued)**  
**Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		as rebates for high-efficiency appliances, HVAC systems and insulation. The Project would support this action/strategy because it includes Project Design Feature GHG-PDF-1, which requires buildings to be designed and constructed to incorporate environmentally sustainable design features equivalent to a minimum Silver certification under the U.S. Green Building Council's LEED® Rating System for new construction and comply with specific requirements of the Los Angeles Green Building Code (consistency with this regulation is discussed below).
<b>Senate Bill 1368 (SB 1368):</b> GHG Emissions Standard for Baseload Generation prohibits any retail seller of electricity in California from entering into a long-term financial commitment for baseload generation if the GHG emissions are higher than those from a combined-cycle natural gas power plant.	State and LADWP	<b>Consistent.</b> LADWP would be required to meet this performance-based standard. As LADWP would provide electricity service to the Project Site, the Project would use electricity consistent with this performance-based standard.
<b>California Code of Regulations (CCR), Title 20:</b> The 2012 Appliance Efficiency Regulations, adopted by the California Energy Commission (CEC), include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California.	State, California Energy Commission	<b>Consistent.</b> This performance standard applies to new appliances and lighting that are sold or offered for sale in California. The Project would result in new land use development that would be outfitted with appliances and lighting that comply with CEC's standards.
<b>CCR, Title 24, Building Standards Code:</b> The 2016 Building Energy Efficiency Standards contained in Title 24, Part 6 (also known as the California Energy Code), 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.  The California Green Building Standards Code	State, California Energy Commission	<b>Consistent.</b> Consistent with regulatory requirements, the Project would comply with applicable provisions of the 2017 Los Angeles Green Building Code that in turn requires compliance with mandatory standards included in the California Green Building Standards. The 2016 Title 24 standards are 28 percent more efficient (for electricity) than residential construction built to the 2013 Title 24 standards and 5 percent more efficient (for electricity) for non-residential construction. <sup>c</sup> The 2016 Title 24 standards are more efficient than the 2020 Projected Emissions under Business-as-Usual in the <i>Climate Action Scoping Plan</i> . The standards offer builders better windows, insulation, lighting, ventilation systems and other features that reduce

**Table IV.D-5 (Continued)**  
**Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
(Part 11, Title 24) established mandatory and voluntary standards on planning and design for sustainable site development, energy efficiency (extensive update of the California Energy Code), water conservation, material conservation, and internal air contaminants.		energy consumption in homes and businesses. The Project would further support this regulation since Project Design Feature GHG-PDF-1 would require the Project to implement measures capable of achieving LEED Silver certification or equivalent green building standards, reducing overall energy usage compared to baseline conditions. Thus, the Project has incorporated energy efficiency standards that are substantially more effective than the measures identified in the <i>Climate Action Scoping Plan</i> to reduce GHG emissions.
<b>Assembly Bill 1109 (AB 1109):</b> The Lighting Efficiency and Toxic Reduction Act prohibits a person from manufacturing for sale in the state requires the establishment of minimum energy efficiency standards for all general purpose lights. The standards are structured to reduce average statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018. <sup>d</sup>	State/ Manufacturers	<b>Consistent.</b> The Project would meet the requirements under AB 1109 because it incorporates energy efficient lighting and electricity consumption and thus the Project complies with local and state green building programs.
<b>Cap-and-Trade Program:</b> The program establishes an overall limit on GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, and cement production). Facilities subject to the cap are able to trade permits to emit GHGs within the overall limit.	State	<b>Consistent.</b> As required by AB 32 and the 2008 <i>Climate Change Scoping Plan</i> , the Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. Therefore, GHG emissions associated with the Project's electricity usage per year presented in Table IV.D-10 on page IV.D-81 would be covered by the Cap-and-Trade Program (as LADWP would be a covered entity) and would be consistent with AB 32 and the 2008 <i>Climate Change Scoping Plan</i> .
<b>Million Solar Roofs Program:</b> The program is implemented through SB 1 (Murray, 2006), which provides up to \$3.3 billion in financial incentives for	State	<b>Consistent.</b> The Project is not currently anticipated to include solar roofing materials or photovoltaic cells; thus, the Project would not be eligible for the financial incentives offered by this program. However, Title 24 requires

**Table IV.D-5 (Continued)**  
**Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
the installation of residential, commercial and institutional solar PV programs.		rooftop areas on high-rise multi-family buildings and non-residential buildings to set aside a minimum area for potential installation of solar panels at a later date. Thus, the Project would be considered “solar-ready.”
<b>Mobile (40 percent of project inventory)</b>		
<b>Assembly Bill 1493 (AB 1493) “Pavley Standards”:</b> AB 1493 requires the development and adoption of regulations to achieve “the maximum feasible reduction of greenhouse gases” emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. In compliance with AB 1493, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles and light duty trucks of model year 2009 through 2016. Model years 2017 through 2025 are addressed by California’s Advanced Clean Cars program (discussed below).	State, CARB	<b>Consistent.</b> The Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and are expected to reduce GHG emissions by about 30 percent in 2016, all while improving fuel efficiency. This regulatory program applies to vehicle manufacturers, and not directly to land use development. Vehicular travel by the Project would benefit from this regulation in the form of reduced GHG emissions because vehicle associated with the Project would be affected by AB 1493. Mobile source emissions generated by the Project would be reduced with implementation of AB 1493 consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions provided in Table IV.D-10 on page IV.D-81 were calculated using CalEEMod, which includes implementation of AB 1493 into mobile source emission factors.
<b>Executive Order S-01-07:</b> The Low Carbon Fuel Standard (LCFS) requires a 10-percent or greater reduction by 2020 in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the LCFS as a Discrete Early Action item under AB 32, and the final resolution (09-31) was issued on April 23, 2009 (CARB 2009). <sup>e,f</sup>	State, CARB	<b>Consistent.</b> GHG emissions related to vehicular travel by the Project would benefit from this regulation because fuel used by Project-related vehicles would be compliant with LCFS. Mobile source GHG emissions provided in Table IV.D-10 on page IV.D-81 were calculated using CalEEMod, which includes implementation of the LCFS into mobile source emission factors.
<b>Advanced Clean Cars Program:</b> In 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot, and GHGs with	State, CARB	<b>Consistent.</b> Similar to AB 1493, this regulatory program applies to manufacturers, and not directly to land use development. Standards under the Advanced Clean Cars Program will apply to all passenger and light duty trucks used by customers, employees, and deliveries to the Project. GHG emissions related to vehicular travel by the Project would benefit from this

**Table IV.D-5 (Continued)**  
**Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.</p>		<p>regulation and mobile source emissions generated by the Project would be reduced with the implementation of standards under the Advanced Clean Cars Program consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions provided in Table IV.D-10 on page IV.D-81 conservatively do not include this additional 34-percent reduction in mobile source emissions as the CalEEMod model does not yet account for this regulation. The Project would further support this regulation since the Applicant would provide at least 20 percent of the total code-required parking spaces for the Project to be capable of supporting future electric vehicle supply equipment (EVSE) and 5 percent of the total code-required parking spaces to be further equipped with EV charging stations, as set forth in Project Design Feature GHG-PDF-3 and GHG-PDF-4, above.</p>
<p><b>Senate Bill (SB) 375:</b> SB 375 requires integration of planning processes for transportation, land-use and housing. Under SB 375, each Metropolitan Planning Organization would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled and trips so that the region will meet a target, created by CARB, for reducing GHG emissions.</p>	<p>State, CARB Regional, SCAG</p>	<p><b>Consistent.</b> SB 375 requires SCAG to direct the development of the SCS for the region, which is discussed further below. The Project represents an infill development within an existing urbanized area that would <b>concentrate</b> residential and commercial (retail/restaurant) uses within a HQTAs. Therefore, the Project would be consistent with SCAG’s 2016–2040 RTP/SCS as it is located within a HQTAs. Furthermore, the 2016–2040 RTP/SCS would result in an estimated 18-percent decrease in per capita GHG emissions by 2035 and a 21-percent decrease in per capita GHG emissions by 2040, within the SCAG region. As discussed above, CARB updated the SB 375 targets for the SCAG region, requiring a 19-percent decrease in VMT by 2035. Implementation of the 2016–2040 RTP/SCS or the next plan is expected to fulfill and exceed the region’s obligations under SB 375 with respect to meeting the State’s GHG emission reduction goals. As discussed below, the Project results in a mobile GHG emissions reduction of approximately 60 percent (see Appendix B of this Draft EIR) compared to a Project without Reduction Features and would be less than the reduction targets in the 2016-2040 RTP/SCS and CARB’s updated 2035 target. Therefore, the Project would be consistent with SB 375, the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS, and with CARB’s updated 2035 target.</p>

**Table IV.D-5 (Continued)**  
**Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<b>Solid Waste (2 percent of project inventory)</b>		
<p><b>California Integrated Waste Management Act of 1989 and Assembly Bill 341:</b> The California Integrated Waste Management Act of 1989 requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; and (2) diversion of 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting facilities.<sup>9</sup></p> <p><b>AB 341 (2011)</b> amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter.<sup>h</sup></p>	State	<p><b>Consistent.</b> GHG emissions related to solid waste generation from the Project would benefit from this regulation as it would decrease the overall amount of solid waste disposed at landfills. The decrease in solid waste would then in return decrease the amount of methane released from the decomposing solid waste. As discussed in Section IV.L.3, Utilities and Service Systems-Solid Waste, the Project includes several project design features which would help further reduce waste. Specifically, Project Design Feature SW-PDF-1 requires the Project to provide on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials. In addition, Project Design Feature SW-PDF-2 requires the use of building materials with recycled content.</p>
<b>Water (8 percent of project inventory)</b>		
<p><b>CCR, Title 24, Building Standards Code:</b> The California Green Building Standards Code (Part 11, Title 24) includes water efficiency requirements for new residential and non-residential uses, in which buildings shall demonstrate a 20-percent overall water use reduction.</p>	State	<p><b>Consistent.</b> The Project would comply with applicable provisions of the 2017 Los Angeles Green Building Code which in turn requires compliance with mandatory standards included in the California Green Building Standards (20-percent overall water use reduction). Project-related GHG emissions from water related sources, as provided in Table IV.D-10 on page IV.D-81, incorporates Project Design Feature WAT-PDF-1, which sets forth the Project's water conservation measures. Examples include: high-efficiency dual-flush toilets; high-efficiency showerheads flow rate of 1.5 gallons per minute; tankless and on-demand water heaters installed in non-residential restrooms; and artificial turf in dog park areas, among others. The Project would have an overall water use reduction of 20 percent and would</p>

**Table IV.D-5 (Continued)**  
**Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		meet the requirements of the California Green Building Standards.
<p><b>Senate Bill X7-7:</b> The Water Conservation Act of 2009 sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The state is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convey, treat, and distribute the water; it also reduces emissions from wastewater treatment.</p>	State	<p><b>Consistent.</b> As discussed above under Title 24, the Project would meet this performance-based standard. In addition, Project Design Feature WAT-PDF-1, included in Section IV.L.1, Utilities and Service Systems—Water, of this Draft EIR, provides a specific list of water conservation measures. Examples include: high-efficiency dual-flush toilets; high-efficiency showerheads flow rate of 1.5 gallons per minute; tankless and on-demand water heaters installed in non-residential restrooms; and artificial turf in dog park areas, among others. The Project thereby includes measures consistent with the GHG reductions sought by SB X7-7 related to water conservation and related GHG emissions.</p>
<b>Construction (9 percent of project inventory)</b>		
<p><b>CARB In-Use Off-Road Regulation:</b> CARB's in-use off-road diesel vehicle regulation ("Off-Road Diesel Fleet Regulation") requires the owners of off-road diesel equipment fleets to meet fleet average emissions standards pursuant to an established compliance schedule.</p>	CARB	<p><b>Consistent.</b> The Project Applicant would use construction contractors that would comply with this regulation.</p>
<p><b>CARB In-Use On-Road Regulation:</b> CARB's in-use on-road heavy-duty vehicle regulation ("Truck and Bus Regulation") applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds.<sup>i</sup></p>	CARB	<p><b>Consistent.</b> The Project Applicant would use construction contractors that would comply with this regulation.</p>
<p><sup>a</sup> California Energy Commission, <i>Utility Annual Power Content Labels for 2017</i>, <a href="http://www.energy.ca.gov/pcl/labels/">www.energy.ca.gov/pcl/labels/</a>, accessed February 11, 2019.</p>		

**Table IV.D-5 (Continued)  
Consistency Analysis—2008 Climate Change Scoping Plan and First Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p><sup>b</sup> Senate Bill 350 (2015–2016 Reg. Session) Stats 2015, Ch. 547.</p> <p><sup>c</sup> California Building Standards Commission, Energy Commission Approves More Efficient Buildings for California’s Future, News Release, May 31, 2012.</p> <p><sup>d</sup> 2007b. Assembly Bill 1109 (2007–2008 Reg. Session) Stats. 2007, Ch. 534.</p> <p><sup>e</sup> CARB, Initial Statement of Reason for Proposed Regulation for The Management of High Global Warming Potential Refrigerant for Stationary Sources, October 23, 2009.</p> <p><sup>f</sup> Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the “lifecycle” of a transportation fuel.</p> <p><sup>g</sup> Cal. Pub. Res. Code § 41780(a).</p> <p><sup>h</sup> Cal. Pub. Res. Code § 41780.01(a).</p> <p><sup>i</sup> CARB, Truck and Bus Regulation—On-Road Heavy Duty Diesel Vehicles (In-Use) Regulation, <a href="http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm">www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm</a>, page last reviewed December 20, 2018.</p> <p>Source: Eyestone Environmental, 2019.</p>		

In 2017, the Scoping Plan was again updated (2017 Update) building upon the First Update with new policies and plans to reduce GHG emissions.<sup>95</sup> The 2017 Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the 2008 Climate Change Scoping Plan and First Update shown on Table IV.D-5 on page IV.D-48. A summary of these policies and measures are provided in Table IV.D-6 on page IV.D-57. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets.

**Based on the analysis above, the Project would be consistent with the GHG reduction-related actions and strategies in the 2008 *Climate Change Scoping Plan* and subsequent updates and related impacts would be less than significant.**

*(ii) 2016–2040 RTP/SCS*

The purpose of SB 375 is to implement the state’s greenhouse gas emissions reduction goals by integrating land use planning with the goal of reducing car and light-duty truck travel. As discussed above, SB 375 requires CARB to set regional targets for GHG emission reductions from passenger vehicle use. Each metropolitan planning organization is required to prepare a SCS as part of its regional transportation plan (RTP). Specifically, the SCS is required to demonstrate how the region will meet regional GHG reduction targets, as adopted by the CARB. Under SB 375, the primary goal of the SCS is to provide a framework for future growth that will decrease per capita GHG emissions from cars and light-duty trucks based on land use planning and transportation options. To accomplish this goal, the SCS identifies various strategies to reduce per capita VMT.

The 2016–2040 RTP/SCS is expected to help SCAG reach its GHG reduction goals, as identified by CARB, with reductions in per capita transportation emissions of 9 percent passenger vehicle GHG emissions by 2020 and 16 percent passenger vehicle GHG emissions by 2035.<sup>96</sup> Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.<sup>97</sup> The 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions from passenger vehicles by 2035, and 21-percent decrease in per capita GHG

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<sup>95</sup> CARB, *2017 Climate Change Scoping Plan*.

<sup>96</sup> CARB, *Regional Greenhouse Gas Emission Reduction Targets Pursuant to SB 375, Resolution 10-31*.

<sup>97</sup> SCAG, *Final 2016–2040, RTP/SCS, April 2016, p. 153*.



**Table IV.D-6  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p><b>SB 350:</b> SB 350, the Clean Energy and Pollution Reduction Act of 2015, increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by 2030.<sup>a</sup></p> <p>Required measures include:</p> <ul style="list-style-type: none"> <li>• Increase RPS to 50 percent of retail sales by 2030.</li> <li>• Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.</li> <li>• Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.</li> </ul>	<p>CPUC, CEC, CARB</p>	<p><b>Consistent.</b> LADWP is required to generate electricity that would increase renewable energy resources to 33 percent by 2020 and 50 percent by 2030. As LADWP would provide electricity service to the Project Site, by 2030 the Project would use electricity consistent with the requirements of SB 350. Project buildout would occur in year 2023 and, therefore, the estimated GHG emissions from electricity usage provided below include implementation of SB 350 with a compliance date of 2030.</p> <p>As required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under CCR Title 24, Part 6 (consistency with this regulation is discussed below) and utility-sponsored programs such as rebates for high-efficiency appliances, HVAC systems, and insulation.</p> <p>The Project would further support this action/strategy because it includes Project Design Feature GHG-PDF-1, which would require the Project incorporate features as to be capable of meeting the standards of LEED Silver or equivalent, thus reducing overall energy usage compared to baseline conditions.</p>
<p><b>Implement Mobile Source Strategy (Cleaner Technology and Fuels)</b></p> <ul style="list-style-type: none"> <li>• At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.</li> <li>• At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.</li> <li>• Further increase GHG stringency on all light-duty</li> </ul>	<p>CARB, CalSTA, SGC, Caltrans CEC, OPR</p>	<p><b>Consistent.</b> CARB approved the Advanced Clean Cars Program in 2012 which establishes an emissions control program for model year 2017 through 2025. Standards under the Advanced Clean Cars Program will apply to all passenger and light duty trucks used by customers, employees, and deliveries to the Project. The Program also requires auto manufacturers to produce an increasing number of zero emission vehicles in the 2018 through 2025 model years. Extension of the Advanced Clean Cars Program has not yet been adopted, but it is</p>

**Table IV.D-6 (Continued)  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>vehicles beyond existing Advanced Clean Cars regulations.</p> <ul style="list-style-type: none"> <li>• Implementation of federal phase 2 standards for medium- and heavy-duty vehicles</li> <li>• Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.</li> <li>• Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.</li> <li>• Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document</li> </ul>		<p>expected that measures will be introduced to increase GHG stringency on light duty autos and continue adding zero emission and plug in vehicles through 2030. In addition, the Project would support this policy since the Applicant would provide 5 percent electric vehicle charging stations and 20 percent electric vehicle supply wiring of the total code-required parking spaces for the Project, consistent with Project Design Feature GHG-PDF-4 and GHG-PDF-3, respectively.</p> <p>CARB is also developing the Innovative Clean Transit measure to encourage purchase of advanced technology buses such as alternative fueled or battery powered buses. This would allow fleets to phase in cleaner technology in the near future. CARB is also in the process of developing proposals for new approaches and strategies to achieve zero emission trucks under the Advanced Clean Local Trucks (Last Mile Delivery) Program.<sup>b,c</sup></p> <p>GHG emissions generated by Project-related vehicular travel would benefit from this regulation, and mobile source emissions generated by the Project would be reduced with implementation of standards under the Advanced Clean Cars Program, consistent with reduction of GHG emissions under AB 32. The Advanced Clean Cars Program would reduce CO2 emissions from passenger vehicles from their model year 2016 levels by approximately 34 percent by model year 2025.<sup>98</sup> Mobile source GHG emissions provided in Table IV.D-10 on page IV.D-81 conservatively do not include this additional 34-percent reduction in mobile source emissions as the CalEEMod model does not yet account for this regulation. Although the Innovative Clean Transit and Advanced Clean Local Truck Programs have not yet been established, the Project would also benefit from these measures once adopted.</p>

<sup>98</sup> CARB, *Advanced Clean Cars Program*, [ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program](http://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program), accessed September 5, 2018.

**Table IV.D-6 (Continued)  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>“Potential VMT Reduction Strategies for Discussion.”</p> <ul style="list-style-type: none"> <li>•</li> </ul>		<p>SB 375 requires SCAG to direct the development of the SCS for the region, which is discussed further below. The Project represents an infill development within an existing urbanized area that would concentrate new residential and commercial retail uses within a HQTAs. Therefore, the Project would be consistent with SCAG’s 2016–2040 RTP/SCS, as it is located within a HQTAs. Furthermore, the 2016–2040 RTP/SCS would result in an estimated 18-percent decrease in per capita GHG emissions by 2035 and 21-percent decrease in per capita GHG emissions by 2040. As discussed above, CARB updated the SB 375 targets for the SCAG region, requiring a 19-percent decrease in VMT by 2035. Implementation of the 2016–2040 RTP/SCS or the next plan is expected to fulfill and exceed the region’s obligations under SB 375 with respect to meeting the State’s GHG emission reduction goals. As discussed below, the Project results in a 60 reduction in VMT with a corresponding reduction in mobile GHG emissions reduction of approximately 56 percent (see Appendix B of this Draft EIR) compared to a Project without Reduction Features, which would be greater than the percent reduction targets in the 2016–2040 RTP/SCS. Therefore, the Project would be consistent with SB 375 and the 2016–2040 RTP/SCS.</p>
<p><b>Increase Stringency of SB 375 Sustainable Communities Strategy (2035 Targets)</b></p>	<p>CARB</p>	<p><b>Consistent</b> Under SB 375, CARB sets regional targets for GHG emission reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each region. As required under SB 375, CARB is required to update regional GHG emissions targets every 8 years, which was last updated in March 2018. As part of the 2018 updates, CARB has adopted a passenger vehicle related GHG reduction of 19 percent for 2035 for the SCAG region, which is more stringent than the current reduction target of 13 percent for 2035.</p> <p>The Project would be consistent with SB 375 for developing an infill project within an existing urbanized area. This would concentrate new residential and retail uses within an HQTAs. Project-related transportation emissions would be reduced by approximately</p>

**Table IV.D-6 (Continued)  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		56 percent (see Appendix B of this Draft EIR) and, therefore, the Project would be consistent with SB 375 and the 2016–2040 RTP/SCS. See further analysis on the 2016-2040 RTP/SCS, below.
<p><b>By 2019, adjust performance measures used to select and design transportation facilities.</b></p> <ul style="list-style-type: none"> <li>Harmonize project performance with emissions reductions, and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).</li> </ul>	CalSTA and SGC, OPR, CARB, GoBiz, IBank, DOF, CTC, Caltrans	<b>Not Applicable.</b> The Project would not involve construction of transportation facilities. However, the Project Site is located approximately 0.25 mile from several Metro, LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes. The Project would benefit from these bus routes by encouraging use of mass transit resulting in a reduction of Project-related vehicle trips to and from the site.
<p><b>By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).</b></p>	CalSTA, Caltrans, CTC, OPR/SGC, CARB	<b>Not Applicable.</b> The Project would not affect any pricing policies related to low-GHG transportation programs. The Project would indirectly support this policy since the Applicant would provide electric vehicle charging stations at 5 percent of total code required parking spaces for the Project. In addition, electric vehicle supply wiring (EV ready) will be available in at least 20 percent of the total code-required parking spaces for the Project and electric vehicle charging stations would be provided for 5 percent of the total code-required parking spaces, consistent with Project Design Feature GHG-PDF-3 and GHG-PDF-4, respectively.
<p><b>Implement California Sustainable Freight Action Plan:</b></p> <ul style="list-style-type: none"> <li>Improve freight system efficiency.</li> <li>Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.</li> </ul>	CARB	<b>Not Applicable.</b> The Project land uses would not include freight transportation or warehousing. Therefore, the Project would not interfere or impede the implementation of the Sustainable Freight Action Plan.
<p><b>Adopt a Low Carbon Fuel Standard with a CI reduction of 18 percent.</b></p>	CARB	<b>Not Applicable.</b> This regulatory program applies to fuel suppliers, not directly to land use development. GHG emissions related to vehicular travel associated with the Project would benefit from this regulation because fuel used by Project-related vehicles would be required to

**Table IV.D-6 (Continued)  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		<p>comply with LCFS. Mobile source GHG emissions provided in Table IV.D-10 on page IV.D-81 were calculated using CalEEMod. However, CalEEMod does not include implementation of the LCFS into mobile source emission factors. Emissions reductions due to LCFS were calculated separately outside of CalEEMod.</p> <p>The current LCFS, adopted in 2007, requires a reduction of at least 10 percent in the carbon intensity (CI) of California's transportation fuels by 2020. On September 27, 2018, CARB approved an amendment to the LCFS regulation to require a 20-percent reduction in CI from a 2010 baseline by 2030. Reductions in CI are phased in starting in 2019 with a reduction of 6.25 percent and increases by 1.25 percent each year. LCFS emissions reductions were calculated for the Project based on a 11.25-percent reduction in CI by 2023, the Project's buildout year.<sup>d</sup></p>
<p><b>Implement the Short-Lived Climate Pollutant Strategy by 2030:</b></p> <ul style="list-style-type: none"> <li>• 40-percent reduction in methane and hydrofluorocarbon emissions below 2013 levels.</li> <li>• 50-percent reduction in black carbon emissions below 2013 levels.</li> </ul>	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p><b>Not Applicable.</b> SB 605 was adopted in 2014 which directs CARB to develop a comprehensive Short-Lived Climate Pollutant (SLCP) strategy. SB 1383 was later adopted in 2016 to require CARB to set statewide 2030 emission reduction targets of 40 percent for methane and hydrofluorocarbons and 50 percent black carbon emissions below 2013 levels.<sup>e</sup></p> <p>The Project would comply with the CARB SLCP Reduction Strategy, which limits the use of hydrofluorocarbons for refrigeration uses.</p>
<p><b>By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.</b></p>	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p><b>Not Applicable.</b> Under SB 1383, the California Department of Resources Recycling and Recovery (CalRecycle) is responsible for achieving a 50-percent reduction in the level of statewide disposal of organic waste from the 2014 level by 2020 and 75-percent reduction by 2025. As of March 2018, CalRecycle is currently holding workshops to review draft regulatory language. Adoption of the regulations to achieve SB 1383 targets is expected in early 2019.<sup>f</sup></p> <p>The Project would be consistent with AB 341 which requires not less than 50 percent of solid waste generated be source reduced through</p>

**Table IV.D-6 (Continued)  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		recycling, composting or diversion. Reduction in solid waste generated by the Project would reduce overall GHG emissions. Compliance with AB 341 would also help achieve the goals of SB 1383.
<b>Implement the post-2020 Cap-and-Trade Program with declining annual caps.</b>	CARB,	<b>Not Applicable.</b> The current Cap-and-Trade program would end on December 31, 2020. AB 398 was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program from January 1, 2021, through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions. Under the Cap-and-Trade program, entities such as power generation companies and natural gas processing plants would be required to limit or reduce GHG emissions. This would result in a reduction of GHG emissions associated with the Project's energy usage. As the Project would not impede the Program's progress, the Project is considered consistent.
<p><b>By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink:</b></p> <ul style="list-style-type: none"> <li>• Protect land from conversion through conservation easements and other incentives.</li> <li>• Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity</li> <li>• Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments</li> <li>• Establish scenario projections to serve as the foundation for the Implementation Plan</li> </ul>	CNRA and departments within, CDFA, CalEPA, CARB	<b>Not Applicable.</b> This regulatory program applies to Natural and Working Lands, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Integrated Natural and Working Lands Implementation Plan.
<b>Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018</b>	CARB	<b>Not Applicable.</b> This regulatory program applies to Natural and Working Lands, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Integrated Natural and Working Lands Implementation Plan.

**Table IV.D-6 (Continued)  
Consistency Analysis—2017 Update**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<b>Implement Forest Carbon Plan</b>	CNRA, CAL FIRE, CalEPA	<b>Not Applicable.</b> This regulatory program applies to state and federal forest land, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Forest Carbon Plan.
<b>Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.</b>	State Agencies & Local Agencies	<b>Not Applicable.</b> Funding and financing mechanisms are the responsibility of the state and local agencies. The Project would not conflict with funding and financing mechanisms to support GHG reductions.
<p><sup>a</sup> Senate Bill 350 (2015–2016 Regular Session) Stats 2015, Ch. 547.</p> <p><sup>b</sup> CARB, <i>Advance Clean Cars, Midterm Review</i>, <a href="http://www.arb.ca.gov/msprog/acc/acc-mtr.htm">www.arb.ca.gov/msprog/acc/acc-mtr.htm</a>.</p> <p><sup>c</sup> CARB, <i>Advanced Clean Local Trucks (Last mile delivery and local trucks)</i>, <a href="http://www.arb.ca.gov/msprog/actruck/actruck.htm">www.arb.ca.gov/msprog/actruck/actruck.htm</a>.</p> <p><sup>d</sup> CARB, <i>LCFS Rulemaking Documents</i>, <a href="http://www.arb.ca.gov/fuels/lcfs/rulemakingdocs.htm">www.arb.ca.gov/fuels/lcfs/rulemakingdocs.htm</a>.</p> <p><sup>e</sup> CARB, <i>Reducing Short-Lived Climate Pollutants in California</i>, <a href="http://www.arb.ca.gov/cc/shortlived/shortlived.htm">www.arb.ca.gov/cc/shortlived/shortlived.htm</a>.</p> <p><sup>f</sup> CARB, <i>Short-Lived Climate Pollutants (SLCP): Organic Waste Methane Emissions Reductions</i>, <a href="http://www.calrecycle.ca.gov/climate/slcp/">www.calrecycle.ca.gov/climate/slcp/</a>.</p> <p>Source: CARB, <i>California’s 2017 Climate Change Scoping Plan</i>, November 2017.</p>		

emissions from passenger vehicles by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state’s GHG emission reduction goals.

In March 2018, the CARB updated the SB 375 targets to require an 8-percent reduction by 2020 and a 19-percent decrease in VMT for the SCAG region by 2035.<sup>99</sup> As these reduction targets were updated after the 2016–2040 RTP/SCS, it is expected that the next iteration of the RTP/SCS will be updated to include these targets. The 2016–2040 RTP/SCS and/or the next RTP/SCS are expected to fulfill and exceed SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.

In addition to demonstrating the region’s ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the 2016–2040 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2016–2040 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use. With regard to individual developments, such as the Project, strategies and policies set forth in the 2016–2040 RTP/SCS can be grouped into the following three categories: (1) reduction of vehicle trips and VMT; (2) increased use of alternative fuel vehicles; and (3) improved energy efficiency.

#### Consistency with Integrated Growth Forecast

The 2016–2040 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG’s Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. According to the 2016–2040 RTP/SCS, the forecasted population for the City of Los Angeles Subregion in 2016 is approximately 3,954,629 persons.<sup>100</sup> In 2023 the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have a

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<sup>99</sup> CARB, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets (2018)*.

<sup>100</sup> Based on a linear interpolation of 2012–2040 data. The 2016 extrapolated value is calculated using SCAG’s 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2016:  $((4,609,400 - 3,845,500) \div 28) * 4 + 3,845,500 = 3,954,629$ .



population of approximately 4,145,604 persons.<sup>101</sup> Based on a household size factor of 2.43 persons per household for multi-family housing units, the Project is estimated to generate a residential population of 1,599 persons at full buildout.<sup>102,103</sup> The estimated 1,599 new residents generated by the Project would represent approximately 0.84 percent of the population growth forecasted by SCAG in the City of Los Angeles Subregion between 2016 and 2023. With regard to employment, the Project's 27,300 square feet of commercial uses would generate approximately 74 employees, based on employee generation rates promulgated by the Los Angeles Unified School District, which is a reduction from the existing employee population of 273 employees.<sup>104,105</sup> According to the 2016–2040 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2016 is approximately 1,763,929 employees.<sup>106</sup> In 2023, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,882,104 employees.<sup>107</sup> Thus, the Project's 74 estimated employees would constitute approximately 0.06 percent of the employment growth forecasted between 2016 and 2023. Because similar projections form the basis of the 2016 AQMP, it can be concluded that the Project would be consistent with the projections in the AQMP.

As discussed above, SCAG plans for regional population growth using smart land use strategies. Consistent with SCAG's RTP/SCS alignment of transportation, land use, and housing strategies, the Project would accommodate projected increases in population, households, employment, and travel demand by implementing smart land use strategies.

<sup>101</sup> Based on a linear interpolation of 2012–2040 data. The 2023 extrapolated value is calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2023  $((4,609,400 - 3,845,500) \div 28) * 11 + 3,845,500 = 4,145,604$ .

<sup>102</sup> Based on a 2.43 persons per household rate for multi-family units based on the 2016 American Community Survey 5-Year Average Estimate (2012–2016) per correspondence with Jack Tsao, Los Angeles Department of City Planning Demographics Unit, March 8, 2018. The Initial Study prepared for the Project and included as Appendix A of this Draft EIR used a rate of 2.44 persons per unit based on a average household size for 2010-2014 in the 2015 American Community Survey. The Department of City Planning subsequently confirmed the 2.43 average was the factor to be used.

<sup>103</sup>  $260 * 2.43 = \sim 632$  persons

<sup>104</sup> Los Angeles Unified School District, 2012 Developer Fee Justification Study, February 9, 2012, Table 11. Based on the employee generation rate of 0.00271 employee per average square foot for "Neighborhood Shopping Center" (retail and restaurant uses).

<sup>105</sup> Based on the employee generation rate for "Neighborhood Shopping Center" land uses as provided by the Los Angeles Unified School District, 2016 Developer Fee Justification Study, Table 15, March 2017, the rate of 0.00271 employees per square foot is applied.

<sup>106</sup> Based on a linear interpolation of 2012–2040 data. The 2016 extrapolated value is calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2016:  $((2,169,100 - 1,696,400) \div 28) * 4 + 1,696,400 = 1,736,929$ .

<sup>107</sup> Based on a linear interpolation of 2012–2040 data. The 2023 extrapolated value is calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2023:  $((2,169,100 - 1,696,400) \div 28) * 11 + 1,696,400 = 1,882,104$ .

As discussed previously, the Project Site is an infill location close to jobs, housing, shopping and entertainment uses and in close proximity to existing and future public transit stops, which would result in reduced VMT, as compared to a project of similar size and with similar land uses at a location without close and walkable access to off-site destinations and public transit stops. Also refer to Section IV.G, Land Use, of this Draft EIR, for additional information regarding consistency with the 2016–2040 RTP/SCS.

### Consistency with VMT Reduction Strategies and Policies

SCAG's 2016–2040 RTP/SCS includes for the SCAG region as a whole, a daily 22.8 Total VMT per capita for the 2012 Base Year, and a daily 20.5 Total VMT per capita for the 2040 Plan Year. For Los Angeles County, the 2012 Base Year projected daily Total VMT per capita is 21.5 and the daily Total VMT per capita is 18.4 for the 2040 Plan Year. To analyze the Project's consistency with this aspect of the 2016–2040 RTP/SCS, the Project's Total Daily VMT was divided by the Project's service population to arrive at the per capita Total Daily VMT estimates. The estimate, as provided in Table IV.D-7 on page IV.D-67, was compared to the VMT data for the region and Los Angeles County provided by the 2016 RTP/SCS; in both instances, the Project's per capita Total VMT estimate was lower.

As shown in Appendix B of this Draft EIR, the Project includes characteristics that would reduce trips and VMT as compared to a standard project within the air basin as measured by the air quality model (CalEEMod). These relative reductions in vehicle trips and VMT from a standard project within the air basin help quantify the GHG emissions reductions achieved by locating the Project in an infill, HQTAs area that promotes alternative modes of transportation. Specifically, the Project characteristics listed below are consistent with the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*,<sup>108</sup> which identifies the VMT and vehicle trips reductions for the Project Site relative to the standard trip and VMT rates in CalEEMod, which corresponds to reduction relative GHG emissions. Measures applicable to the Project include the following; a brief description of the Project's relevance to the measure is also provided:

- **Increase Density (LUT-1):** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies, such as enhanced transit services. The Project would increase the site density from zero dwelling units per acre and 45 jobs per acre to approximately 109 dwelling units per acre and 12 jobs per acre.

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<sup>108</sup> CAPCOA, *Quantifying Greenhouse Gas Mitigation Measures*, 2010.

**Table IV.D-7  
Comparison of Project Total VMT/Capita to 2016–2040 RTP/SCS**

Scenario	Daily Weekday Trips <sup>a</sup> Annual VMT <sup>b</sup> Total MTCO <sub>2e</sub> (per year)
Total VMT (Project) <sup>a</sup>	8,503 Daily VMT
Service Population <sup>b</sup>	1,400
Total VMT Per Capita	6.1 VMT/Capita (Daily)
<p><sup>a</sup> VMT was calculated using CalEEMod and the results are provided in Appendix B of this Draft EIR.</p> <p><sup>b</sup> The “Service Population” includes residents (1,599) and workers (74) minus Baseline workers (273).</p> <p>Source: Eyestone Environmental, 2019.</p>	

- Increase Diversity of Urban and Suburban Developments (Mixed-Uses) (LUT-3):** The Project would introduce new uses on the Project Site, including new residential uses. The Project would co-locate complementary residential, retail, and restaurant land uses in proximity to other existing off-site residential and commercial uses. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.
- Increase Transit Accessibility (LUT-5):** The Project would be located approximately 0.25 mile from the several Metro, LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes.
- Improve Design of Development (LUT-9):** The Project would include improved design elements including developing ground floor retail and restaurant uses and paved plazas with seating, landscaped paseos, and landscaped open space which would enhance walkability in the vicinity of the Project Site. The Project would also locate a development in an area with approximately 107 intersections per square mile which improves street accessibility and connectivity.
- Provide Pedestrian Network Improvements (SDT-1):** Providing pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets encourages people to walk instead of drive. The Project would provide an internal pedestrian network that links to the existing off-site pedestrian network including existing off-site sidewalks, to encourage and increase pedestrian activities in the area, which would further reduce VMT and associated transportation-related emissions.

As shown in Table IV.D-7, the Total Project VMT per capita of 6.1 per day would be well below SCAG’s region daily average of 20.5 VMT per capita for the 2040 Plan Year and

Los Angeles County's daily average of 18.4 VMT per capita for the 2040 Plan Year. In addition, the Project results in a VMT reduction of approximately 60 percent and a 56 percent reduction in GHG emissions from mobile sources in comparison to a Project without Reduction Features, which would be consistent with the reduction in transportation emission per capita targeted by 2016–2040 RTP/SCS and the updated SB 375 targets. This reduction is attributable to the Project characteristics of being an infill project near transit that supports multi-modal transportation options. It should be noted that the VMT per capita calculation is for informational purposes to demonstrate consistency with the 2016–2040 RTP/SCS as numeric thresholds have not been formally adopted.

The Project would also be consistent with the following key GHG reduction strategies in SCAG's 2016–2040 RTP/SCS, which are based on changing the region's land use and travel patterns:

- Compact growth in areas accessible to transit;
- More multi-family housing;
- Jobs and housing closer to transit;
- New housing and job growth focused in HQTAs; and
- Biking and walking infrastructure to improve active transportation options and transit access.

The Project represents an infill development within an existing urbanized area that would concentrate new residential and commercial (retail/restaurant) uses within a HQTA, which is defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The Project Site is located approximately 0.25 mile from several Metro, LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes. The Project would also provide bicycle storage areas for residents, employees, and visitors. The Project would provide residents, employees, and visitors with convenient access to public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions, which would be consistent with the goals of SCAG's 2016–2040 RTP/SCS.

In addition, the Project would 724 bicycle parking spaces (658 long-term spaces and 66 short-term spaces), in addition to bicycle-serving amenities, that would further encourage biking. Furthermore, the Project Site was designed to encourage walkability through a mix of uses (residential, retail, office). These and other measures would further

promote a reduction in VMT and subsequent reduction in GHG emissions, which would be consistent with the goals of SCAG's 2016–2040 RTP/SCS.

#### Increased Use of Alternative Fueled Vehicles Policy Initiative

The second goal of the 2016 RTP/SCS, with regard to individual development projects, such as the Project, is to increase alternative fueled vehicles to reduce per capita GHG emissions. The 2016 RTP/SCS policy initiative focuses on providing charge port infrastructure and accelerating fleet conversion to electric or other near zero-emission technologies. The Project would provide at least 20 percent of the total parking spaces provided to be capable of supporting future EVSE as dictated by Project Design Feature GHG-PDF-3 and the Applicant will provide at least 5 percent of the total parking spaces further provided with EV charging stations as dictated by Project Design Feature GHG-PDF-4.

#### Energy Efficiency Strategies and Policies

The third important focus within the 2016–2040 RTP/SCS for individual developments such as the Project, involves improving energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. The 2016–2040 RTP/SCS goal is to actively encourage and create incentives for energy efficiency, where possible. As discussed above, project design features would reduce the amount of energy used by the Project. Specifically, Project Design Feature GHG-PDF-1 would ensure that Project energy usage would be optimized. In addition, Project Design Feature GHG-PDF-2 forbids the use of natural gas fire places within residential units throughout the Project Site, which would reduce GHG emissions resulting from natural gas combustion. The Project would also install high-efficiency Energy Star appliances to reduce electricity and natural gas usage with Title 24 sources. In total, Project GHG emissions from electricity and natural gas usage would be reduced by 10 percent with implementation of project design features.

#### Land Use Assumptions

At the regional level, the 2016–2040 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs. In order to assess the Project's consistency with the 2016–2040 RTP/SCS, this Draft EIR also analyzes the Project's land use assumptions for consistency with those utilized by SCAG in its Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's Regional Transportation Plan/Sustainable Communities Strategy, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project's consistency with the applicable goals and principles set forth in the 2016–2040 RTP/SCS is analyzed in Section IV.G, Land Use, of this Draft EIR. As discussed

therein, the Project is consistent with the Actions and Strategies set forth in the 2016–2040 RTP/SCS.<sup>109</sup>

In sum, the Project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the state’s long-term climate policies.<sup>110</sup> By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with state regulatory requirements.

**Therefore, the Project would be consistent with the GHG reduction-related actions and strategies contained in the 2016–2040 RTP/SCS, which is intended to reduce GHG emissions.**

*(iii) LA Green Plan/ClimateLA*

The Project would be consistent with the LA Green Plan/Climate LA.<sup>111</sup> The LA Green Plan/ClimateLA outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities. Table IV.D-8 on page IV.D-71, provides a discussion of the Project’s consistency with applicable GHG-reducing actions from the LA Green Plan/ClimateLA. As discussed below, the Project is consistent with the applicable goals and actions of the LA Green Plan/ClimateLA. To facilitate implementation of the LA Green Plan/ClimateLA, the City adopted the Los Angeles Green Building Code. The 2017 Los Angeles Green Building Code (Chapter IX, Article 9, of the Los Angeles Municipal Code, as amended pursuant to City of Los Angeles Ordinance No. 184,692), incorporated by reference the mandatory requirements of the 2016 California Green Building Standards Code (discussed above under Climate Change Scoping Plan). The Project would comply with performance-based standards included in the Green Building Code (e.g., 2016 Building Energy Efficiency Standards). Project Design Feature GHG-PDF-1 would require the design of the new buildings to incorporate features to achieve the sustainability intent of the Certified Rating under the LEED® green building program or equivalent green building standards.

In order to meet reduction goals in the LA Green Plan/ClimateLA, LADWP will continue to implement programs to emphasize water conservation and will pursue securing

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<sup>109</sup> As discussed in the 2016–2040 RTP/SCS, the actions and strategies included in the 2016–2040 RTP/SCS remain unchanged from those adopted in the 2012–2035 RTP/SCS.

<sup>110</sup> As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

<sup>111</sup> City of Los Angeles, *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming*, 2007.

**Table IV.D-8**  
**Consistency with Applicable GHG Emissions Goals and Actions of LA Green Plan**

Action	Description	Consistency Analysis
<b>Focus Area: Energy</b>		
E6	Present a comprehensive set of green building policies to guide and support private sector development.	<b>Consistent.</b> While this action primarily applies to the City, the Project would be designed and operated to meet or exceed the applicable requirements of the state Green Building Standards Code and the City of Los Angeles Green Building Code and meet the standards of the USGBC LEED Silver level or its equivalent where applicable, as required under Project Design Feature GHG-PDF-1.
<b>Focus Area: Water</b>		
W1	Meet all additional demand for water resulting from growth through water conservation and recycling.	<b>Not Applicable, but Benefits the Project</b> While this action primarily applies to the City and LADWP, the Project would incorporate water conservation features to reduce indoor water use by at least 20 percent, including high-efficiency dual-flush toilets; high-efficiency showerheads flow rate of 1.5 gallons per minute; tankless and on-demand water heaters installed in non-residential restrooms; and artificial turf in dog park areas, among others Further detail is provided in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR.  The Mayor's Office and LADWP developed the <i>Securing LA's Water Supply</i> plan, which is an aggressive, multi-faceted approach to developing a locally sustainable water supply. The plan includes a set of key short-term and long-term strategies to secure our water future, such as:  Short-Term Conservation Strategies: <ul style="list-style-type: none"> <li>• Enforcing prohibited uses of water (levying fines and sanctions against water abusers and increase water conservation awareness).</li> <li>• Expanding the list of prohibited uses of water (possible further restrictions on watering landscape and washing/rinsing vehicles without a self-closing nozzle).</li> <li>• Extending outreach efforts, water conservation incentives, and rebates.</li> <li>• Encouraging regional conservation measures (encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement).</li> </ul> Long-Term Conservation Strategies: <ul style="list-style-type: none"> <li>• Increasing water conservation through reduction of outdoor water</li> </ul>

**Table IV.D-8 (Continued)**  
**Consistency with Applicable GHG Emissions Goals and Actions of LA Green Plan**

Action		Description	Consistency Analysis
		use and new technology. <ul style="list-style-type: none"> <li>• Maximizing water recycling.</li> <li>• Enhancing stormwater capture.</li> <li>• Accelerating clean-up of the groundwater basin.</li> <li>• Expanding groundwater storage.</li> </ul>	
W2	Reduce per capita water consumption by 20 percent.	[See W1, above.]	[See W1, above.]
<b>Focus Area: Transportation</b>			
T8	Promote walking and biking to work, within neighborhoods, and to large events and venues.	Promoting alternate modes of travel will reduce the carbon emissions associated with SOVs. As described in Action Items LU1 and LU2, the City is promoting high-density and mixed-use housing close to major transportation arteries. Such developments will also support the advancement of Action Item T8, by improving accessibility for those who wish to walk and bike to work.	<b>Consistent.</b> While this action primarily applies to the City, the Project would promote a pedestrian-friendly community by connecting the ground level retail and paseos with the surrounding community. The Project represents an infill development within an existing urbanized area that would concentrate new residential and commercial (retail/restaurant) uses within a HQTAs. The Project Site is located approximately 0.25 mile from the several Metro, LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes. In addition, the Project would also provide bicycle storage areas for Project residents, employees, and visitors. The Project would provide residents, employees, and visitors with convenient access to public transit and opportunities for walking and biking, including the installation of bicycle parking spaces in accordance with LAMC requirements.
<b>Focus Area: Land Use</b>			
LU1	Promote high-density housing close to major transportation arteries.	With 469 square miles, Los Angeles is a vast and sprawling city. Yet many neighborhoods are walkable, with stores and services clustered near dense residential housing. As the city continues to redevelop and grow, there is an unprecedented opportunity to rethink the urban	<b>Consistent.</b> The Project represents an infill development within an existing urbanized area that would <b>concentrate new</b> residential and commercial (retail/restaurant) uses within a HQTAs. The Project Site is located approximately 0.25 mile from several Metro, LADOT Transit



**Table IV.D-8 (Continued)**  
**Consistency with Applicable GHG Emissions Goals and Actions of LA Green Plan**

Action	Description	Consistency Analysis
	<p>environment.</p> <p>Accommodating continued growth requires taking advantage of infill opportunities and increasing density along transit corridors.</p>	<p>Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes. The Project would provide bicycle parking for Project residents, employees, and visitors. Furthermore, the Project is located within access to Marina Expressway (SR-90) and the Pacific Coast Highway.</p>
LU2	<p>Promote and implement transit-oriented development (TOD).</p>	<p>TODs represent opportunities for creating cohesive, vibrant, walkable communities where fragmented, auto-dependent corridors now exist. TODs are a positive alternative to low-density traditional land use patterns that typically segregate housing, jobs and neighborhood services from one another. In contrast, TODs cluster these community elements in close proximity, so a greater portion of trips can be made by transit, bike, or on foot.</p> <p><b>Consistent.</b> The Project constitutes a TOD as the Project would concentrate new residential and commercial (retail/restaurant) uses in proximity to public transit opportunities (e.g., rail and bus routes). The study area is well-served by public transit, including both bus and rail service. The Project Site is located approximately 0.25 mile from several Metro, LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes.</p>
<b>Focus Area: Waste</b>		
Wst1	<p>Reduce or recycle 70 percent of trash by 2015.</p>	<p>Source reduction and recycling programs not only conserve natural resources and landfill space, but also confer climate benefits.</p> <p><b>Consistent.</b> While this action primarily applies to the City, the Project would provide adequate storage areas in accordance with Project Design Feature SW-PDF-1, which requires the Project to provide on-site recycling containers to promote the recycling of paper, metal, glass, and other recyclable materials.</p>
<p>Source: <i>Eyestone Environmental, 2019.</i></p>		

alternative supplies, including recycled water and storm water capture. With regard to solid waste, the City implemented the RENEW LA plan to meet solid waste reduction goals by expanding recycling to multifamily dwellings, commercial establishments, and restaurants. The Project would be indirectly affected by these actions and would further reduce water and solid waste generation, thereby meeting the goals of the LA Green Plan/ClimateLA. In addition, LADWP is required to procure a minimum of 33 percent of its energy portfolio

from renewable sources by 2020, and would continue to implement programs consistent with the LA Green Plan/ClimateLA.

**Overall, the Project would not conflict with the LA Green Plan, which is intended to reduce GHG emissions. As such, impacts related to consistency with the LA Green Plan would be less than significant.**

*(iv) City of Los Angeles Sustainable City pLAN*

As discussed above, the Sustainable City pLAN includes both short-term and long-term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. The Sustainable City pLAN provides information as to what the City will do with buildings and infrastructure in their control. Although the Sustainable City pLAN mainly targets GHG emissions related to City owned buildings and operations, certain reductions would also benefit the Project. Such measures include increasing renewable energy usage; reduction of per capita water usage; promotion of walking and biking to work, large events and venues; promotion of high density housing close to major transportation stops; and various recycling and trash diversion goals.

The Project would generally be consistent with these aspirations as the Project is an infill development consisting of new residential, retail, and restaurant uses on a Project Site located approximately 0.25 mile from several Metro, LADOT Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus routes. In addition, the Project would provide 724 bicycle parking spaces (658 long-term spaces and 66 short-term spaces) to further encourage biking. Furthermore, the Project would comply with CALGreen, implement various project design features to reduce energy usage, including WAT-PDF-1, and would comply with the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986) in furtherance of the aspirations included in the Sustainable City pLAN with regard to energy-efficient buildings and waste and landfills.

**Overall, the Project would be consistent with the Sustainable City pLAN. Therefore, impacts pertaining to consistency with the Sustainable City pLAN would be less than significant.**

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(v) *Post-2030 Analysis*

Recent studies show that the State's existing and proposed regulatory framework will put the State on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.<sup>112</sup> Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.

Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, which would require the State board to ensure that Statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. As discussed above, the new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries. The Project's design features advance these goals by reducing VMT, providing infrastructure to support the use of electric vehicles, improving energy efficiency and reducing water usage.

The emissions modeling in the 2017 Update has projected 2030 statewide emissions which take into account known commitments (reduction measures) such as SB 375, SB 350 and other measures. The emissions inventory identified an emissions gap, meaning that emissions reductions due to known commitments do not decline fast enough to achieve the 2030 target. In order to fill this gap, the 2017 Update assumed a scenario in which cap-and-trade would deliver the reductions necessary to achieve the 2030 emissions target. Although the Project is consistent with the 2017 Update, additional measures to achieve the 2030 targets and beyond are outside of the City or the Project's control. Therefore, any evaluation of post-2030 Project emission would be speculative.

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<sup>112</sup> *Energy and Environmental Economics (E3). "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors.*

Executive Order S-3-05 establishes a goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. This goal, however, has not been codified. That being said, studies have shown that, in order to meet the 2050 target, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its 2008 Climate Change Scoping Plan, CARB acknowledged that the “measures needed to meet the 2050 are too far in the future to define in detail.”<sup>113</sup> In the First Update, however, CARB generally described the type of activities required to achieve the 2050 target: “energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately.”<sup>114</sup>

Although the Project’s emissions level in 2050 cannot be reliably quantified, statewide efforts are underway to facilitate the State’s achievement of that goal and it is reasonable to expect the Project’s emissions level (6,191 metric tons of CO<sub>2e</sub> per year) to decline as the regulatory initiatives identified by CARB in the First Update are implemented, and other technological innovations occur. Stated differently, the Project’s total emissions at build-out presented in Table IV.D-10 on page IV.D-81, represents the maximum emissions inventory for the Project as California’s emissions sources are being regulated (and foreseeably expected to continue to be regulated in the future) in furtherance of the State’s environmental policy objectives. As such, given the reasonably anticipated decline in Project emissions once fully constructed and operational, the Project is consistent with the Executive Order’s horizon-year (2050) goal. Further, the Project’s consistency with SCAG’s RTP/SCS demonstrates that the Project will be consistent with post-2020 GHG reduction goals. The 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions from passenger vehicles by 2035, and 21-percent decrease in per capita GHG emissions from passenger vehicles by 2040. In March 2018, CARB adopted updated targets requiring a 19-percent decrease in VMT for the SCAG region by 2035. As the CARB targets were adopted after the 2016–2040 RTP/SCS, it is expected that the updated targets will be incorporated into the next RTP/SCS. The 2016–2040 RTP/SCS and/or the next RTP/SCS are expected to fulfill and exceed SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.

The Project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options. As shown in Table IV.D-7 on page IV.D-67, the 6.1 Total Project VMT per capita is below SCAG’s region daily

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<sup>113</sup> CARB, *Climate Change Scoping Plan: A Framework for Change*, December 2008, p. 117.

<sup>114</sup> CARB, *2017 Scoping Plan Update*, November 2017, p. 18.

average of 20.5 Total VMT per capita for the 2040 Plan Year and Los Angeles County's daily average of 18.4 VMT per capita for the 2040 Plan Year. In addition, the Project results in a VMT reduction of approximately 60 percent and a 56 percent reduction in GHG emissions from mobile sources in comparison to a Project without Reduction Features, and would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS. By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with State climate targets for 2020 and beyond.

The emissions modeling in the 2017 Update has projected 2030 statewide emissions which take into account known commitments (reduction measures) such as SB 375, SB 350, and other measures. The emissions inventory identified an emissions gap, meaning that emissions reductions due to known commitments do not decline fast enough to achieve the 2030 target. In order to fill this gap, the 2017 Update assumed a scenario in which cap-and-trade would deliver the reductions necessary to achieve the 2030 emissions target. Although the Project is consistent with the 2017 Update, additional measures to achieve the 2030 targets and beyond are outside of the City or the Project's control. Therefore, any evaluation of post-2030 Project emission would be speculative.

For the reasons described above, the Project's post-2030 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets and Executive Orders S-3-05 and B-30-15.

#### *(vi) Conclusion*

Because the Project's location, land use characteristics and design render it consistent statewide and regional climate change mandates, plans, policies, and recommendations, and with the City's Green Building Code and the LA Green Plan, the Project would not conflict with any applicable plan, policy, regulation or recommendation to reduce GHG emissions and its impacts would be less than significant.

#### *(b) Project Emissions*

As discussed above, CEQA Guidelines Section 15064.4 recommends quantification of a Project's GHG emissions. However, the quantification is being done for informational purposes only and Project GHG emissions are not evaluated against any numeric threshold, as compliance with a GHG emissions reduction plan renders a project's potential impacts less than significant. In support of the above regulatory consistency analysis which describes the Project's compliance with or exceedance of performance-based standards included in the regulations and policies outlined in the applicable portions of the 2008 Climate Change Scoping Plan and subsequent updates, the 2016–2040 RTP/SCS,

the LA Green Plan/ClimateLA, and the Sustainable City pLAN, quantitative calculations are provided below.

The Project would result in direct and indirect GHG emissions generated by different types of emissions sources, including:

- Construction: direct emissions associated with demolition of the existing buildings parking areas, shoring, excavation, grading, and construction-related equipment and vehicular activity;
- Area source: direct emissions associated with landscape equipment;
- Energy source (building operations): indirect emissions associated with space heating and cooling, water heating, energy consumption, and lighting;
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators);
- Mobile source: emissions associated with vehicles accessing the project site;
- Solid Waste generation: indirect emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
- Water/Wastewater generation: indirect emissions associated with energy used to pump, convey, deliver, and treat water.

The Project would generate an incremental contribution and cumulatively increase GHG emissions. A specific discussion regarding potential GHG emissions associated with the construction and operational phases of the Project is provided below.

*(i) Construction*

As described in Section II, Project Description, of this Draft EIR, Project construction is anticipated to occur in one phase and be completed in 2023. Construction of the Project, which would be approximately 37 months, would commence with removal of the existing buildings and the existing buildings and surface parking areas, followed by grading and excavation for the subterranean parking garages. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. It is estimated that approximately 220,000 cubic yards of soil would be hauled from the Project Site during the excavation phase. For additional construction assumptions, see Appendix B of this Draft EIR. The calculations of the emissions generated during Project construction activities reflect the number of haul/delivery truck trips, employee trips, and types and quantities of construction equipment that would be used to remove the existing

asphalt, excavate for the subterranean parking structures, construct the proposed buildings, and plant new landscaping, within the Project Site. The GHG emissions associated with Project construction were calculated for each year of construction activity, as summarized in Table IV.D-9 on page IV.D-80.

As presented in Table IV.D-9, construction of the Project is estimated to generate a total of 9,966 MTCO<sub>2</sub>e. As recommended by the SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.<sup>115</sup> Based on this methodology, amortized construction GHG emissions would be 332 MTCO<sub>2</sub>e per year. A complete listing of the construction equipment by on-site and off-site activities, duration, and emissions estimation model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in Appendix B of this Draft EIR.

## *(ii) Operation*

### Area Source Emissions

Area source emissions from fireplaces and landscape maintenance equipment are provided in Table IV.D-10 on page IV.D-81 and were calculated using the CalEEMod emissions inventory model. As discussed above, Project Design Feature GHG-PDF-2 prohibits the installation of natural gas-powered hearths (fireplaces). As shown in Table IV.D-10, the Project, at full buildout, is expected to result in a total of 11 MTCO<sub>2</sub>e per year from area sources and accounts for a 93 percent reduction in area source emissions with implementation of Project Design Feature GHG-PDF-2, as compared to a project without implementation of reduction features.

### Electricity and Natural Gas Generation Emissions

GHGs are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO<sub>2</sub> and other GHGs directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. GHGs are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

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<sup>115</sup> SCAQMD Governing Board Agenda Item 31, December 5, 2008.

**Table IV.D-9  
Combined Construction-Related Emissions  
(MTCO<sub>2e</sub>)**

	<b>MTCO<sub>2e</sub></b>
2020	3,232
2021	3,784
2022	2,103
2023	847
<b>Total</b>	<b>9,966</b>
<b>Amortized Over 30 Years</b>	<b>332</b>
<i>Source: Eyestone Environmental, 2019.</i>	

Electricity and natural gas emissions were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the energy usage by applicable emissions factors chosen by the utility company. GHG emissions from electricity use are directly dependent on the electricity utility provider. In this case, GHG intensity factors for LADWP were selected in CalEEMod. The carbon intensity (lbs/MWh) for electricity generation was calculated for the Project buildout year based on LADWP projections for years 2015 and 2026. Straight line interpolation was performed to estimate the LADWP carbon intensity factor for the Project buildout year. LADWP's carbon intensity projections also take into account SB 350 RPS requirements for renewable energy. However, they conservatively do not account for SB 100 RPS requirements for renewable energy.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building, such as the operation of appliances that use electricity. CalEEMod calculates energy use from systems covered by Title 24 (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins (e.g., computer), and other sources not covered by Title 24 or lighting.

CalEEMod electricity and natural gas usage rates are based on the CEC-sponsored California Commercial End-Use Survey (CEUS) and California Residential Appliance Saturation Survey (RASS) studies.<sup>116</sup> The data are specific to climate zones; therefore, Zone 11 was selected for the Project Site based on the ZIP Code tool. Since these studies

<sup>116</sup> CEC, *Commercial End-Use Survey, March 2006, and California Residential Appliance Saturation Survey, October 2010.*



**Table IV.D-10**  
**Annual GHG Emissions Summary (Buildout)<sup>a</sup>**  
**(metric tons of carbon dioxide equivalent [MTCO<sub>2e</sub>])**

Scope	Project Without Reduction Features	Project	Reduction <sup>b</sup>
Area <sup>c</sup>	154	11	-93%
Energy <sup>d</sup>	2,314	2,101	-9%
Mobile <sup>e</sup>	7,532	3,280	-56%
Stationary <sup>f</sup>	8	8	0%
Solid Waste <sup>g</sup>	241	121	-50%
Water/Wastewater <sup>h</sup>	423	338	-20%
Construction	332	332	0%
<b>Total Emissions</b>	<b>11,005</b>	<b>6,191</b>	<b>-44%</b>

<sup>a</sup> CO<sub>2e</sub> was calculated using CalEEMod and the results are provided in Appendix B of this Draft EIR.

<sup>b</sup> Certain GHG reduction measures and regulations discussed above in the consistency analysis are not readily quantifiable and were not included as part of the emissions inventory. In addition, some reduction measures are implemented over time such as RPS, LCFS and fuel economy standards. Although the Project accounted for RPS, LCFS and fuel economy standards at Project buildout year, emissions do not reflect increased standards for later years. Therefore, Project emissions presented are conservative and would be lower in future years.

<sup>c</sup> Area source emissions are from the use of landscape equipment.

<sup>d</sup> Energy source emissions are based on CalEEMod default electricity and natural gas usage rates. Emissions from electricity generation only take into account carbon intensity at build out year, but does not take into account decreasing carbon intensity required by SB 350 (RPS). However, it is recognized that the RPS would require utilities to supply 50% renewable energy by 2030. As a note, the analysis conservatively does not include the updated carbon intensity for electricity generation as required by SB 100.

<sup>e</sup> Assumes compliance with LCFS for both Project and Project without Reduction Features. Mobile source emissions do not account for increasing fuel economy standards for future years or proposed LCFS standards.

<sup>f</sup> Stationary source emissions are from a proposed on-site emergency generator.

<sup>g</sup> Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.

<sup>h</sup> Water/Wastewater emissions are calculated based on CalEEMod default water consumption rates.

Source: Eyestone Environmental, 2019.

are based on older buildings, adjustments have been made to account for changes to Title 24 building codes but do not reflect 2016 Title 24 standards. For the Project scenario, an adjustment was made to account for the 2016 Title 24 standards. New building construction subject to 2016 Title 24 standards are anticipated to be 28 percent more

efficient (for electricity) than residential construction built to the 2013 Title 24 standards and 5 percent more efficient (for electricity) for non-residential construction.<sup>117</sup>

The Project would implement a number of project design features that would reduce Project energy consumption. Specifically, Project Design Feature GHG-PDF-1, which would require the Project to incorporate features as to be capable of meeting the standards of LEED Silver or equivalent, would reduce overall energy usage. In addition, Project Design Feature GHG-PDF-2, which would prohibit the use of natural gas fire places within residential units throughout the Project Site, would reduce GHG emissions resulting from natural gas combustion.

As shown in Table IV.D-10 on page IV.D-81, the Project, at full buildout, is expected to result in a total of 2,101 MTCO<sub>2e</sub> per year from combined electricity and natural gas usage and accounts for a 9-percent reduction in energy source emissions with implementation of Project Design Feature GHG-PDF-1 and Project Design Feature GHG-PDF-2, as compared to a project without implementation of reduction features.

#### Mobile Source Emissions

Mobile source operational emissions were calculated based on the Project trip generation estimates provided for the Project by Linscott, Law, & Greenspan, Engineers.<sup>118</sup> As discussed in Section IV.J, Transportation/Traffic, of this Draft EIR, to calculate daily trips, the number of residential units and amount of building area for the commercial (retail/restaurant) uses were multiplied by the applicable trip-generation rates based on the Institute of Transportation Engineers (ITE)'s *Trip Generation, 9th Edition*.

As discussed above, the Project design also includes characteristics that would reduce trips and VMT as compared to a project without implementation of reduction features within the air basin as measured by the air quality model (CalEEMod). Specifically, the Project represents an infill development within an existing urbanized area that would concentrate new residential and commercial (retail/restaurant) uses within a HQTAs, which is defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-served transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours (see Section IV.G, Land Use, of this EIR for further details). The Project is located in an area well-served by public transit provided by Los Angeles County Metropolitan Transit Authority (Metro), Los Angeles Department of Transportation (LADOT) Transit Commuter Express, Culver CityBus, and City of Santa Monica Big Blue Bus. Specifically, the Project Site is currently served by a

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<sup>117</sup> CEC, *Adoption Hearing, 2016 Building Energy Efficiency Standards*.

<sup>118</sup> Linscott, Law, & Greenspan, Engineers, *Transportation Impact Study, October 30, 2017*.

total of 12 bus routes. The Project would also incorporate characteristics that would reduce trips and VMT as compared to a project without implementation of reduction features.

As shown in Table IV.D-10 on page IV.D-81, the Project GHG emissions from mobile sources would result in a total of 3,280 MTCO<sub>2e</sub> per year and accounts for a 56-percent reduction in mobile source emissions taking into account the distance to mass transit, as compared to a project without implementation of reduction features.

#### Stationary Source Emissions

Emissions related to stationary sources were calculated using the CalEEMod emissions inventory model. It is anticipated the Project would not include any emergency generators. As shown in Table IV.D-10, the Project, at full buildout, is forecasted to result in a total of 8 MTCO<sub>2e</sub> per year from stationary sources.

#### Solid Waste Generation Emissions

Emissions related to solid waste were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the waste generated by applicable emissions factors provided in Section 2.4 of USEPA's AP-42, Compilation of Air Pollutant Emission Factors. CalEEMod solid waste generation rates for each applicable land use were selected for this analysis. As shown in Table IV.D-10, the Project, at full buildout, is forecasted to result in 121 MTCO<sub>2e</sub> per year from solid waste generation and accounts for a 50-percent recycling/diversion rate.<sup>119</sup> Refer to Section IV.L.3, Utilities and Service Systems—Solid Waste, of this Draft EIR for additional details on the Project's potential impacts with regard to solid waste generation.

#### Water Usage and Wastewater Generation Emissions

GHG emissions are also associated with the energy used to convey, treat, and distribute water and wastewater. These emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water; including: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, energy also is used when the wastewater is conveyed, treated, and, where available, reused as reclaimed water.

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the water usage

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<sup>119</sup> While AB 341 requires a solid waste diversion rate of 75 percent, the Project conservatively assumes a diversion rate of 50 percent.

by the applicable energy intensity factor<sup>120</sup> to determine the embodied energy necessary to supply potable water. GHG emissions are then calculated based on the amount of electricity consumed multiplied by the GHG intensity factors for the utility provider. In this case, embodied energy for Southern California supplied water and GHG intensity factors for LADWP were selected in CalEEMod. Water usage rates were calculated consistent with the requirements under City of Los Angeles Ordinance No. 184,248, the 2016 California Plumbing Code, 2016 California Green Building Code, 2017 Los Angeles Plumbing Code, and 2017 Los Angeles Green Building Code, which reflects approximately a 20-percent reduction as compared to the base demand. Refer to Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure and Section IV.L.2, Utilities and Service Systems—Wastewater, of this Draft EIR, for additional details on the Project's potential impacts to water supply and wastewater service.

As shown in Table IV.D-10 on page IV.D-81, the Project, at full buildout, is forecasted to result in 338 MTCO<sub>2e</sub> per year from water usage and wastewater generation and accounts for a 20-percent reduction in water/wastewater emissions consistent with specific mandatory requirements of CALGreen Code (i.e., requires a 20-percent minimum reduction in water usage and wastewater generation in comparison to baseline requirements) and implementation of WAT-PDF-1 provided in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR.

### *(iii) Combined Construction and Operational Impacts*

As shown in Table IV.D-10, when taking into consideration implementation of relevant project design features, as well as the requirements set forth in the City of Los Angeles Green Building Code, and full implementation of current State mandates, the Project's GHG emissions in 2023 would be 332 MTCO<sub>2e</sub> per year (amortized over 30 years) during construction and 5,859 MTCO<sub>2e</sub> per year during operation, for a combined total of 6,191 MTCO<sub>2e</sub> per year.

### *(c) Conclusion*

In summary, the plan consistency analysis provided above demonstrates that the Project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in the 2008 Climate Change Scoping Plan and subsequent updates, the 2016–2040 RTP/SCS, the LA Green Plan/ClimateLA, and the Sustainable City pLAN. As the Project would not conflict with relevant plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs, impacts related to regulatory consistency would be less than significant. **Therefore, the Project would not conflict**

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<sup>120</sup> The intensity factor reflects the average pounds of CO<sub>2e</sub> per megawatt generated by a utility company.

with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Furthermore, because the Project is consistent and does not conflict with these plans, policies, and regulations, the Project's incremental increase in GHG emissions as described above would not result in a significant impact on the environment. Therefore, Project-specific impacts with regard to climate change would be less than significant.

## 4. Cumulative Impacts

As identified in Section III, Environmental Setting, of this Draft EIR, a total of 39 related projects are located in the vicinity of the Project Site. A map of the related project locations is provided in Figure III-1 in Section III, Environmental Setting, of this Draft EIR.

As explained above, the analysis of a project's GHG emissions is inherently a cumulative impacts analysis because climate change is a global problem and the emissions from any single project alone would be negligible. Accordingly, the analysis above took into account the potential for the Project to contribute to the cumulative impact of global climate change. Table IV.D-10 on page IV.D-81 illustrates that implementation of the Project's regulatory requirements and project design features, including state mandates, would result in lower GHG emissions than without such measures.

The analysis shows that the Project is consistent with CARB's 2008 Climate Change Scoping Plan and subsequent updates, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. The Project is also consistent with the 2016-2040 RTP/SCS' regulatory requirements to reduce regional GHG emissions from the land use and transportation sectors by 2020 and 2035. In addition, the Project would comply with the LA Green Plan/ClimateLA, which emphasizes improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. Furthermore, the Project would generally comply with the aspirations of the Sustainable City pLAN, which includes specific targets related to housing and development, and mobility and transit. Given the Project's consistency with statewide, regional, and local plans adopted for the reduction of GHG emissions, it is concluded that the Project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable. **For these reasons, the Project's cumulative contribution to global climate change is less than significant.**

## **5. Mitigation Measures**

As discussed above, the Project would result in less-than-significant impacts related to GHG emissions and no mitigation measures are required. The Project would comply with applicable LA Green Plan requirements as set forth throughout this Draft EIR above and would implement Project Design Feature GHG-PDF-1 through GHG-PDF-4, as well as Project Design Feature WAT-PDF-1, to reduce GHG emissions.

## **6. Level of Significance After Mitigation**

Through compliance with state mandates and other applicable regulatory requirements, impacts with regard to GHG emissions would be less than significant.