

IV. Environmental Impact Analysis

E. Greenhouse Gas Emissions

1. Introduction

This section compares the Project's characteristics with applicable regulations, plans, and policies set forth by the State of California, the Southern California Association of Governments (SCAG) and the City to reduce greenhouse gas (GHG) emissions to determine whether the Project is consistent with and/or would conflict with the provisions of these plans. To assist in analyzing the Project's potential to conflict with applicable regulations, plans and policies, this section also estimates the Project's GHG emissions generated by Project construction and operations, taking into account mandatory and voluntary energy and resource conservation measures that have been incorporated into the Project to reduce GHG emissions. Details of the GHG analysis, including calculation worksheets, assumptions, and model outputs, are provided in Appendix B of this Draft EIR, and are incorporated by reference.

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 severe weather events. 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, as GHG from human activities increase, they build up in the atmosphere and warm the climate, leading to many other changes around the world—

in the atmosphere, on land, and in the oceans, with associated adverse climatic and ecological consequences.¹

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 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.²

Global GHG emissions due to human activities have grown since pre-industrial times. As reported by the United States Environmental Protection Agency (USEPA), global carbon emissions from fossil fuels increased by over 16 times between 1900 and 2008 and by about 43 percent between 1990 and 2015. In addition, in the Global Carbon Budget 2019 report, published in December 2019, atmospheric carbon dioxide (CO₂) concentrations in 2018 were found to be 47 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.³ Global increases in CO₂ concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. Regarding emissions of non-CO₂ GHGs, these have also increased significantly since 1990.⁴ In particular, studies have concluded that it is very likely that the observed increase in methane (CH₄) concentration is predominantly due to agriculture and fossil fuel use.⁵

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.

¹ USEPA, *Climate Change Indicators: Greenhouse Gases*, www.epa.gov/climate-indicators/greenhouse-gases, accessed January 27, 2021.

² Pew Center on Global Climate Change, *Climate Change 101: Understanding and Responding to Global Climate Change*.

³ P. Friedlingstein et al., *Global Carbon Budget 2019*, 2019.

⁴ USEPA, *Global Greenhouse Gas Emissions Data*, www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data, accessed January 27, 2021.

⁵ USEPA, *Climate Change Indicators: Atmospheric Concentrations of Greenhouse Gas*, updated April 2021.

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.⁶

In December 2015, the US entered into the Paris Agreement which has a goal of keeping a global temperature rise this century below 2 degrees Celsius (°C) above pre-industrial levels and limit the temperature increase further to 1.5 °C. This agreement requires that all parties report regularly on emissions and implementation efforts to achieve these goals.

Regarding the adverse effects of global warming, as reported by 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 CO₂ emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO₂ 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.⁷

a. GHG Fundamentals

GHGs are those compounds in the Earth's atmosphere that play a critical role in determining temperature near the Earth's surface. GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).⁸ More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere, but retain

⁶ 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.

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

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

some of the low frequency infrared energy which is radiated back from the Earth towards space, resulting in a warming of the atmosphere. Compounds that re regulated as GHGs are discussed in Table IV.E-1 on page IV.E-5.^{9,10}

Not all GHGs possess the same ability to induce climate change. CO₂ is the most abundant GHG in Earth's atmosphere. Other GHGs are less abundant but have higher global warming potential (GWP) than CO₂. Thus, emissions of other GHGs are commonly quantified in the units of equivalent mass of carbon dioxide (CO₂e). GWP is based on several factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO₂, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years otherwise referred to as atmospheric lifetime) relative to that of CO₂.

The larger the GWP, the more that a given gas warms the Earth compared to CO₂ over that time.¹¹ These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). The IPCC updated the GWP values in its Fourth Assessment Report (AR4). The GWPs in the IPCC AR4 are used by CARB for reporting Statewide GHG emissions inventories, consistent with international reporting standards. By applying the GWP ratios, Project-related CO₂e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline.

The IPCC has issued an updated Fifth Assessment Report (AR5), which has revised down the majority of the GWP for key regulated pollutants. As CARB still uses AR4 values and the modeling software CalEEmod is built on these assumptions, AR4 GWP values are used for the Project. Generally, the changes from AR4 to AR5 are reductions in warming potential for the GHG most associated with construction and operation of typical development projects. The GWP from AR4 and AR5 and atmospheric lifetimes for key regulated GHGs are provided in Table IV.E-2 on page IV.E-6.

⁹ *Intergovernmental Panel on Climate Change, Second Assessment Report, Working Group I: The Science of Climate Change, 1995.*

¹⁰ *Intergovernmental Panel on Climate Change, Fourth Assessment Report, Working Group I Report: The Physical Science Basis, 2007, Table 2.14.*

¹¹ *GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC) and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). CARB has begun reporting GHG emission inventories for California using the GWP values from the IPCC AR4.*

**Table IV.E-1
Description of Identified GHGs^a**

Greenhouse Gas	General Description
Carbon Dioxide (CO₂)	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 ₂ are burning coal, oil, natural gas, and wood.
Methane (CH₄)	A flammable gas and the main component of natural gas. When one molecule of CH ₄ is burned in the presence of oxygen, one molecule of CO ₂ and two molecules of water are released. A natural source of CH ₄ is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH ₄ , which is extracted for fuel. Other sources are landfills, fermentation of manure, and cattle.
Nitrous Oxide (N₂O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N ₂ 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.
Hydrofluorocarbons (HFCs)	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH ₄ or ethane (C ₂ H ₆) 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.
Perfluorocarbons (PFCs)	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.
Sulfur Hexafluoride (SF₆)	An inorganic, odorless, colorless, non-toxic, and non-flammable gas. SF ₆ 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.
Nitrogen Trifluoride (NF₃)	An inorganic, non-toxic, odorless, non-flammable gas. NF ₃ 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.

^a 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*; United States Environmental Protection Agency, *Acute Exposure Guideline Levels (AEGs) for Nitrogen Trifluoride; January 2009*.

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

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon) (AR4 Assessment)	Global Warming Potential (100-year time horizon) (AR5 Assessment)
Carbon Dioxide (CO ₂)	50–200	1	1
Methane (CH ₄)	12 (+/-3)	25	28
Nitrous Oxide (N ₂ O)	114	298	265
HFC-23: Fluoroform (CHF ₃)	270	14,800	12,400
HFC-134a: 1,1,1,2-Tetrafluoroethane (CH ₂ FCF ₃)	14	1,430	1,300
HFC-152a: 1,1-Difluoroethane (C ₂ H ₄ F ₂)	1.4	124	138
PFC-14: Tetrafluoromethane (CF ₄)	50,000	7,390	6,630
PFC-116: Hexafluoroethane (C ₂ F ₆)	10,000	12,200	11,100
Sulfur Hexafluoride (SF ₆)	3,200	22,800	22,500
Nitrogen Trifluoride (NF ₃)	740	17,200	16,100

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, accessed June 16, 2022.

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 is responsible for preparing reports to the Governor on the status of the CAS. The Natural Resources Agency has produced climate change assessments which detail impacts of global warming in California.¹² 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.

¹² *State of California, Department of Justice, Office of the Attorney General, Climate Change Impacts in California*, <https://oag.ca.gov/environment/impact>, accessed January 27, 2021.

- Higher risk of forest fires resulting from increasing temperatures and making forests and brush drier. Climate change will affect tree survival and growth.
- 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 change affecting plant and wildlife habitats.
- Global warming can cause drought, warmer temperatures and saltwater 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 CO₂; (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.¹³

c. Regulatory Framework

There are a number of plans, regulations, programs, and agencies that provide policies, requirements, and guidelines regarding GHG emissions at the federal, state, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

- Federal Clean Air Act
- Corporate Average Fuel Economy (CAFE) Standards
- Energy Independence and Security Act
- California Air Resources Board
- California Greenhouse Gas Reduction Targets

¹³ 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.*

- California Global Warming Solutions Act (AB 32)
- Climate Change Scoping Plan
- Cap-and-Trade Program
- Emission Performance Standards
- Renewables Portfolio Standard Program
- Clean Energy and Pollution Reduction Act
- Pavley Standards
- California Low Carbon Fuel Standard
- Advanced Clean Cars Regulations
- Sustainable Communities and Climate Protection Act (SB 375)
- Senate Bill 743
- Executive Order N-79-20
- California Appliance Efficiency Regulations
- Title 24, Building Standards Code and CALGreen Code
- CEQA Guidelines
- South Coast Air Quality Management District
- Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
- Green New Deal Initiative
- City of Los Angeles Green Building Code
- City of Los Angeles Solid Waste Programs and Ordinances
- City of Los Angeles General Plan
- Traffic Study Policies and Procedures

(1) Federal

(a) Federal Clean Air Act

The USEPA is responsible for implementing federal policy to address GHGs. The United States Supreme Court (Supreme Court) ruled in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), that CO₂ 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. In December 2009, USEPA issued an endangerment finding for GHGs under the CAA, setting the stage for future regulation.

The Federal Government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions. USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

(b) Corporate Average Fuel Economy (CAFE) Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling, 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. The National Highway Traffic Safety Administration (NHTSA) subsequently issued multiple final rules regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011 and later for model years 2012–2016, and 2017–2021. In March 2020, the USDOT and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026.¹⁴ These standards set a combined fleet wide average of 36.9 to 37 for the model years affected.¹⁵

¹⁴ U.S. EPA, *Final Rule for Model Year 2021–2026 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*, published April 30, 2020.

¹⁵ National Highway Traffic Safety Administration (NHTSA), *Corporate Average Fuel Economy standards*.

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 CO₂ 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 USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines. Building on 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 CO₂ emissions by approximately 1.1 billion metric tons.¹⁶

(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.

¹⁶ 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.”¹⁷

(2) State

(a) California Air Resources Board

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California’s State Implementation Plan (SIP), for which it works closely with the Federal Government and the local air districts. The SIP is required for the State to take over implementation of the Federal Clean Air Act. CARB also has primary responsibility for adopting regulations to meet the State’s goal of reducing GHG emissions. The State has met its goals to reduce GHG emissions to 1990 levels by 2020. Subsequent State goals include reducing GHG emissions to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050.

(b) California Greenhouse Gas Reduction Targets

(i) Executive Order S-3-05

Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

¹⁷ 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.

In accordance with Executive Order S-3-05, the Secretary of CalEPA is required to coordinate efforts of various agencies, which comprise the California Climate Action Team (CAT), in order to collectively and efficiently reduce GHGs. The CAT provides periodic reports to the Governor and Legislature on the state of GHG reductions in the State, as well as strategies for mitigating and adapting to climate change.

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.

(ii) Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

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

(iii) Executive Order B-55-18

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, CARB would work with relevant state agencies to develop a framework for implementation and accounting that tracks progress towards this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

(c) California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code (HSC), Division 25.5—California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990

levels by 2020. HSC Division 25.5 defines regulated GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries, with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing State actions that would achieve GHG emissions reductions.

To achieve these goals, 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.¹⁸

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amend HSC Division 25.5, establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of state climate policies reach disadvantaged communities. The new goals outlined in SB 32 update the scoping plan requirement of AB 32 and involve 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.

AB 197, signed September 8, 2016, is a bill linked to SB 32 and signed on September 8, 2016, 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 the CARB board as ex officio, non-voting members and 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.

¹⁸ 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.

(d) *Climate Change Scoping Plan*

AB 32 required CARB to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (HSC section 38561 (h)). 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.”¹⁹ The 2008 Climate Change Scoping Plan had 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.

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.²⁰ Additionally, the 2008 Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through “improving energy efficiency by 25 percent.”

The 2008 Climate Change Scoping Plan identified 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

¹⁹ CARB, *Climate Change Scoping Plan*, December 2008.

²⁰ For a discussion of Renewables Portfolio Standard, refer to subsection 2.c.(2)(f)(i), *California Renewables Portfolio Standard*, on p. IV.E-22.

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 Climate Change Scoping Plan notes 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.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions reduction target for 2020. The 2020 emissions reduction target was originally set at 427 million metric tons (MMT) of CO₂e using the GWP values from the IPCC SAR. 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 must 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, as approximately 596 MMTCO₂e (using GWP values from the IPCC SAR). 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. Therefore, under these original projections, the State would have had to reduce its 2020 BAU emissions by 28.4 percent to meet the 1990 target of 427 MMTCO₂e.

(i) 2014 Update to the Climate Change Scoping Plan

The First Update to the Scoping Plan was approved by CARB in May 2014 and built upon the initial Scoping Plan with new strategies and recommendations.²¹ In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined the 1990 GHG emissions inventory and 2020 GHG emissions limit to be increased to 431 MMTCO₂e. CARB also updated the State's 2020 BAU emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that had recently been adopted

²¹ CARB, *First Update to the AB 32 Scoping Plan, 2014*.

for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 was 509.4 MMTCO_{2e}. Therefore, under the first update to the Scoping Plan, the emission reductions necessary to achieve the 2020 emissions target of 431 MMTCO_{2e} would have been 78.4 MMTCO_{2e}, or a reduction of GHG emissions by approximately 15.4 percent, (down from 28.4 percent).

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.”²² The First Update found that California was 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.²³

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.”²⁴ 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.”²⁵ Those technologies include 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 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 towards 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

²² CARB, 2014 Update, May 2014, p. 4.

²³ CARB, 2014 Update, May 2014, p. 34.

²⁴ CARB, 2014 Update, May 2014, p. 6.

²⁵ CARB, 2014 Update, May 2014, p. 32.

(CPUC) and California Energy Commission (CEC) to facilitate further achievements in building energy efficiency.

(ii) 2017 Update to the Climate Change Scoping Plan

In response to the passage of SB 32 and the identification of the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan in December 2017.²⁶ The 2017 Update builds upon the 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.²⁷

CARB's projected Statewide 2030 emissions takes into account 2020 GHG reduction policies and programs.²⁸ The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions would be achieved from electricity sector standards (i.e., utility providers to supply 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. Implementation of mobile source strategies (cleaner technology and fuels) include the following:

- At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025
- At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030
- Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations

²⁶ CARB, *California's 2017 Climate Change Scoping Plan*, November 2017.

²⁷ CARB, *2017 update*, November 2017, p. 6.

²⁸ CARB, *2017 update*, November 2017.

- Medium- and heavy-duty GHG Phase 2
- 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-NO_x standard.
- Last Mile Delivery: New regulation that would result in the use of low NO_x 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.
- 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 “Potential VMT Reduction Strategies for Discussion.”

The alternatives in the Scoping Plan are designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030.

The 2017 Scoping Plan discusses the role of local governments in meeting the State’s GHG reductions goals because local governments have jurisdiction and land use authority related to: community-scale planning and permitting processes, local codes and actions, outreach and education programs, and municipal operations.²⁹ Furthermore, local governments may have the ability to incentivize renewable energy, energy efficiency, and water efficiency measures.³⁰

For individual projects under CEQA, the 2017 Scoping Plan states that local governments can support climate action when considering discretionary approvals and entitlements. According to the 2017 Scoping Plan, lead agencies have the discretion to

²⁹ CARB, 2017 Update, November 2017, p. 97.

³⁰ CARB, 2017 Update, November 2017, p. 97.

develop evidence-based numeric thresholds consistent with the Scoping Plan, the State's long-term goals, and climate change science.³¹

The City of Los Angeles has not developed per capita targets for 2030 or 2050; however, the City recognizes that GHG emissions reductions are necessary in the public and private sectors. The City has taken the initiative in combating climate change by developing programs such as the Green New Deal and Green Building Code. Each of these programs is discussed further below.

A summary of the GHG emissions reductions required under HSC Division 25.5 is provided in Table IV.E-3 on page IV.E-20.

Under the Scoping Plan Scenario, continuation of the Cap-and-Trade regulation (or carbon tax) is expected to cover approximately 34 to 79 MMTCO₂ of the 2030 reduction obligation.³² The State's short-lived climate pollutants strategy, which is for GHGs that remain in the atmosphere for shorter periods of time compared to longer-lived GHGs like CO₂, is expected to cover approximately 17 to 35 MMTCO₂e. The Renewables Portfolio Standard with 50 percent renewable electricity by 2030 is expected to cover approximately 3 MMTCO₂. The mobile source strategy and sustainable freight action plan includes maintaining the existing vehicle GHG emissions standards, increasing the number of zero emission vehicles and improving the freight system efficiency, and is expected to cover approximately 11 to 13 MMTCO₂. Under the Scoping Plan Scenario, CARB expects that the reduction in GHGs from doubling of the energy efficiency savings in natural gas and electricity end uses in the CEC 2015 Integrated Energy Policy Report by 2030 would cover approximately 7 to 9 MMTCO₂ of the 2030 reduction obligation. The other strategies would be expected to cover the remaining 2030 reduction obligations.

(e) Cap-and-Trade Program

The Climate Change Scoping Plan identifies a Cap-and-Trade Program as one of the strategies California would employ to reduce GHG emissions. CARB asserts that this program will help put California on the path to meet its goal of ultimately achieving an 80-percent reduction from 1990 levels by 2050. Under Cap-and-Trade, an overall limit on GHG emissions from capped sectors is established and facilities subject to the cap will be able to trade permits to emit GHGs.

³¹ CARB, *2017 Update, November 2017, p. 100.*

³² CARB, *California's 2017 Climate Change Scoping Plan, Appendix G, November 2017.*

Table IV.E-3
Estimated Statewide Greenhouse Gas Emissions Reductions Required by HSC Division 25.5

Emissions Scenario	GHG Emissions (MMTCO _{2e})
2008 Scoping Plan (IPCC SAR)	
2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)	596
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	427
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	169 (28.4%) ^a
2014 Scoping Plan Update (IPCC AR4)	
2020 BAU Forecast (CARB 2014 Scoping Plan Estimate)	509.4
2020 Emissions Target Set by AB 32 (i.e., 1990 level)	431
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2020	78.4 (15.4%) ^b
2017 Scoping Plan Update	
2030 BAU Forecast ("Reference Scenario" which includes 2020 GHG reduction policies and programs)	389
2030 Emissions Target Set by HSC Division 25.5 (i.e., 40% below 1990 Level)	260
Reduction below Business-As-Usual Necessary to Achieve 40% below 1990 Level by 2030	129 (33.2%) ^c
<hr/> <i>MMTCO_{2e} = million metric tons of carbon dioxide equivalents</i> ^a $596 - 427 = 169 / 596 = 28.4\%$ ^b $509.4 - 431 = 78.4 / 509.4 = 15.4\%$ ^c $389 - 260 = 129 / 389 = 33.2\%$ <i>Source: CARB, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011; CARB, 2020 Business-as-Usual (BAU) Emissions Projection, 2014 Edition, 2017, www.arb.ca.gov/cc/inventory/data/bau.htm, accessed January 27, 2021; CARB, California's 2017 Climate Change Scoping Plan, November 2017.</i>	

CARB designed and adopted a California Cap-and-Trade Program³³ pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from public and private major sources (deemed "covered entities") by setting a firm cap on Statewide GHG emissions and employing market mechanisms to achieve the State's emission-reduction mandates. The Statewide cap for GHG emissions from the capped sectors³⁴ (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the Program's duration.

³³ California Code of Regulations 17, Sections 95800–96023.

³⁴ California Code of Regulations 17, Sections 95811, 95812.

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 that emit more than 25,000 MTCO_{2e} per year must comply with the Cap-and-Trade Program.³⁵ Triggering of the 25,000 MTCO_{2e} 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”).³⁶

Each covered entity with a compliance obligation is required to surrender “compliance instruments”³⁷ for each MTCO_{2e} of GHG they emit. Covered entities are allocated free allowances in whole or part (if eligible), and can buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Regulation provides a firm cap, ensuring that the Statewide emission limits will not be exceeded. In sum, 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.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported.³⁸ Accordingly, for projects that are subject to the CEQA, GHG emissions from electricity consumption 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.³⁹

The Program applies to emissions that cover approximately 80 percent of the State’s GHG emissions. Demonstrating the efficacy of AB 32 policies, California achieved its 2020 GHG Reduction Target four years earlier than mandated. The largest reductions were the result of increased renewable electricity in the electricity sector, which is a covered sector in the Cap-and-Trade Program.

³⁵ *California Code of Regulations 17, Section 95812.*

³⁶ *California Code of Regulations 17, Sections 95100–95158*

³⁷ *Compliance instruments are permits to emit, the majority of which will be “allowances,” but entities also are allowed to use CARB-approved offset credits to meet up to 8% of their compliance obligations.*

³⁸ *California Code of Regulations 17, Section 95811(b).*

³⁹ *California Code of Regulations 17, Sections 95811, 95812(d).*

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 (Stationary) Sources

(i) Emission Performance Standards

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.

(ii) Renewables Portfolio Standard

SB 1078 (Chapter 516, Statutes of 2002) required retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017 as a Renewables Portfolio Standard (RPS). Subsequent amendments provided additional targets throughout the years. Most recently, on October 7, 2015, SB 350 (Chapter 547, Statutes of 2015), also known as the Clean Energy and Pollution Reduction Act, further increased the RPS to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. SB 350 also requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. The 2017 Climate Change Scoping Plan incorporated the SB 350 standards and estimated the GHG reductions would account for approximately 21 percent of the Scoping Plan reductions.⁴⁰ On September 10, 2018, SB 100, provided additional RPS targets of 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030, and that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by 2045.⁴¹

⁴⁰ CARB, *California's 2017 Climate Change Scoping Plan*, Table 3, p. 31, November 2017. Calculated as: $(108 - 53) / 260 = 21$ percent.

⁴¹ *California Legislative Information, SB-100 California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases*.

(g) *Mobile Sources*

(i) *Pavley Standards*

AB 1493 (Chapter 200, Statutes of 2002), enacted on July 22, 2002, required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009. In 2004, CARB approved the Pavley regulation to require automakers to control greenhouse gas emissions from new passenger vehicles for the 2009 through 2016 model years. Upon adoption of subsequent federal greenhouse gas standards by the United States Environmental Protection Agency (USEPA) that preserved the benefits of the Pavley regulations, the Pavley regulations were revised to accept compliance with the federal standards as compliance with California's standards in the 2012 through 2016 model years. This is referred to as the "deemed to comply" option.

In January 2012, CARB approved greenhouse gas emission regulations which require further reductions in passenger greenhouse gas emissions for 2017 and subsequent vehicle model years. As noted above, in August 2012, the USEPA and USDOT adopted GHG emission standards for model year 2017 through 2025 vehicles.⁴² On November 15, 2012, CARB approved an amendment that allows manufacturers to comply with the 2017–2025 national standards to meet State law. Automobile manufacturers generally comply with these standards through a combination of improved energy efficiency in vehicle equipment (e.g., air conditioning systems) and engines as well as sleeker aerodynamics, use of strong but lightweight materials, and lower-rolling resistance tires.⁴³

In 2018, the USEPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE) which would roll back fuel economy standards and revoke California's waiver. The rule amended certain average fuel economy and GHG standards for passenger cars covering model years 2021 through 2026. On March 30, 2020, the SAFE Rule was finalized and published in the Federal Register, commencing a review period. Subsequent legal challenges from a coalition of states, including California, and private industry groups were issued. However, in December 2021, the NHTSA repealed the SAFE Vehicle Rule Part One. Although the SAFE Vehicle Rule Part One has been repealed, GHG modeling contained in regional plans, such as SCAG's 2020-2045 RTP/SCS, have not been updated to account for this repeal.

⁴² *United States Environmental Protection Agency, 2012.*

⁴³ *CARB, California's Advanced Clean Cars Midterm Review, pp. ES-17, C-9.*

(ii) California Low Carbon Fuel Standard

Executive Order S-01-07 was enacted on January 18, 2007. The order mandates the following: (1) that a Statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) that a LCFS for transportation fuels be established in California. 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. In September 2015, CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted.⁴⁴

The development of the 2017 Scoping Plan Update has identified LCFS as a regulatory measure to reduce GHG emission to meet the 2030 emissions target. In September 2018, the standards were amended by CARB to require a 20 percent reduction in carbon intensity by 2030, aligning with California's 2030 targets set by SB 32.⁴⁵

(iii) Advanced Clean Cars Regulations

In 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2015–2025.⁴⁶ 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 (meaning 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.⁴⁷ During the March 2017 Midterm Review, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light trucks sold in California through 2025.⁴⁸ Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdrew the California waiver for the GHG and ZEV programs under section 209 of the Clean Air Act, which revokes California's authority to implement the Advanced Clean Cars and ZEV mandates. In response, several states

⁴⁴ CARB, *Low Carbon Fuel Standard, About*, ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/about, accessed January 27, 2021.

⁴⁵ CARB, *Advanced Clean Cars Program, About*, ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about, accessed January 27, 2021.

⁴⁶ CARB, *California's Advanced Clean Cars Program*, www.arb.ca.gov/msprog/acc/acc.htm, accessed January 27, 2021.

⁴⁷ CARB, *California's Advanced Clean Cars Program*, www.arb.ca.gov/msprog/acc/acc.htm, accessed January 27, 2021.

⁴⁸ CARB, *News Release: CARB finds vehicle standards are achievable and cost-effective*, www.arb.ca.gov/newsrel/newsrelease.php?id=908, accessed January 27, 2021.

including California filed a lawsuit challenging the withdrawal of the EPA waiver.⁴⁹ In April 2021, the USEPA announced it will move to reconsider its previous withdrawal of the waiver.⁵⁰

In addition, Governor Gavin Newsom signed an executive order (Executive Order No. N-79-20) on September 23, 2020, that would phase out sales of new gas-powered passenger cars by 2035 in California with an additional 10-year transition period for heavy vehicles. The state would not restrict used car sales, nor forbid residents from owning gas-powered vehicles. In accordance with the Executive Order, CARB is developing a 2020 Mobile Source Strategy, a comprehensive analysis that presents scenarios for possible strategies to reduce the carbon, toxic and unhealthy pollution from cars, trucks, equipment, and ships. The strategies will provide important information for numerous regulations and incentive programs going forward by conveying what is necessary to address the aggressive emission reduction requirements.

The primary mechanism for achieving the ZEV target for passenger cars and light trucks is CARB's Advanced Clean Cars II (ACC II) Program. The ACC II regulations will focus on post-2025 model year light-duty vehicles, as requirements are already in place for new vehicles through the 2025 model year. A rulemaking package is anticipated to be presented to the Board in June 2022.

(iv) Sustainable Communities and Climate Protection Act

The Sustainable Communities and Climate Protection Act of 2008, or SB 375 (Chapter 728, Statutes of 2008), establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. SB 375 finds that the "transportation sector is the single largest contributor of greenhouse gases of any sector."⁵¹ Under SB 375, CARB is required, in consultation with the Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035. SCAG is the Metropolitan Planning Organization in which the City of Los Angeles is located in. CARB set targets for 2020 and 2035 for each of the 18 metropolitan planning organization regions in 2010, and updated them in 2018.⁵² In March 2018, the CARB updated the SB

⁴⁹ *United States District Court for the District Court of Columbia, State of California vs. Chao, Case 1:19-cv-02826, 2019.*

⁵⁰ *United States Federal Register, California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Opportunity for Public Hearing and Public Comment (Document Number: 2021-08826), April 28, 2021.*

⁵¹ *State of California, Senate Bill No. 375, September 30, 2008.*

⁵² *CARB, Sustainable Communities & Climate Protection Program, About, ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about, accessed January 27, 2021.*

375 targets for the SCAG region to require an 8-percent reduction by 2020 and a 19-percent reduction by 2035 in per capita passenger vehicle GHG emissions.⁵³ As discussed further below, SCAG has adopted an updated Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) subsequent to the update of the emission targets. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19-percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State’s GHG emission reduction goals.⁵⁴

Under SB 375, the target must be incorporated within that region’s Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities would then need to be consistent with the SCS; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plans) are not required to be consistent with either the RTP or SCS.

(v) Senate Bill 743

Governor Brown signed Senate Bill (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.” Measurements of transportation impacts may include “vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.”

(h) Building Standards

(i) California Appliance Efficiency Regulations

The Appliance Efficiency Regulations (Title 20, Sections 1601 through 1608), 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.

⁵³ CARB, *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*, 2018.

⁵⁴ SCAG, *Final 2020–2045 RTP/SCS, Chapter 0: Making Connections*, 2020, p. 5.

(ii) Title 24, Building Standards Code and CALGreen Code

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

Part 11 of the Title 24 Building Standards is referred to as the California Green Building Standards (CALGreen) Code and was developed to help the State achieve its GHG reduction goals under HSC Division 25.5 (e.g., AB 32) by codifying standards for reducing building-related energy, water, and resource demand, which in turn reduces GHG emissions from energy, water, and resource demand. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.”⁵⁵ The CALGreen Code is not intended to substitute for or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.⁵⁶

On May 9, 2018, the CEC adopted the 2019 Title 24 Standards, which went into effect on January 1, 2020. The 2019 standards continue to improve upon the previous (2016) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.⁵⁷ The 2019 Title 24 Standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. As described in the 2019 Title 24 Standards represent “challenging but achievable design and construction practices” that represent “a major step towards meeting the Zero Net Energy (ZNE) goal.” Single-family homes built with the 2019 Title 24 Standards are projected to use approximately 7 percent less energy due to energy

⁵⁵ *California Building Standards Commission, 2010 California Green Building Standards Code.*

⁵⁶ *California Building Standards Commission, 2010 California Green Building Standards Code.*

⁵⁷ *CEC, 2019 Building Energy Efficiency Standards.*

efficiency measures versus those built under the 2016 standards. Once the mandated rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings are projected to use approximately 30 percent less energy due mainly to lighting upgrades.⁵⁸ Compliance with Title 24 is enforced through the building permit process.

(i) CEQA Guidelines

In August 2007, the California State Legislature adopted Senate Bill 97 (SB 97) (Chapter 185, Statutes of 2007), requiring the Governor's Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In response to SB 97, the OPR adopted CEQA guidelines that became effective on March 18, 2010.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the guidelines.⁵⁹ The guidelines 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. Discretion is given 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, three factors are identified 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.⁶⁰*

⁵⁸ CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.

⁵⁹ 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).

⁶⁰ 14 Cal. Code Regs. § 15064.4(b).

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.”⁶¹

(3) Regional

(a) South Coast Air Quality Management District CEQA Guidance

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

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.⁶² A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds.⁶³ 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_{2e} per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO_{2e} 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_{2e} 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 (e.g., residential/commercial projects). The Working Group has been inactive since 2011, and SCAQMD has not formally adopted any GHG significance threshold for other jurisdictions.

⁶¹ 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.

⁶² SCAQMD, Board Meeting, December 5, 2008, Agenda No. 31, www3.aqmd.gov/hb/2008/December/081231a.htm, accessed January 27, 2021.

⁶³ SCAQMD, Greenhouse Gases CEQA Significance Thresholds, www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds, accessed January 27, 2021.

(b) SCAG Regional Transportation Plan/Sustainable Communities Strategy

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2046 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS) in October 2020. The vision for the region incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality, and encouraging growth in walkable, mixed-use communities with ready access to transit infrastructure and employment. More and varied housing types and employment opportunities would be located in and near job centers, transit stations and walkable neighborhoods where goods and services are easily accessible via shorter trips. To support shorter trips, people would have the choice of using neighborhood bike networks, car share or micro-mobility services like shared bicycles or scooters. For longer commutes, people would have expanded regional transit services and more employer incentives to carpool or vanpool. Other longer trips would be supported by on-demand services such as microtransit, carshare, and citywide partnerships with ride hailing services. For those that choose to drive, hotspots of congestion would be less difficult to navigate due to cordon pricing and using an electric vehicle will be easier thanks to an expanded regional charging network.

The 2020–2045 RTP/SCS states that the SCAG region was home to about 18.8 million people in 2016 and currently includes approximately 6.0 million homes and 8.4 million jobs.⁶⁴ By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with nearly 1.6 million more homes and 1.6 million more jobs. Transit Priority Areas⁶⁵ (TPAs) will account for less than 1 percent of regional total land but are projected to accommodate 30 percent of future household growth between 2016 and 2045. The 2020–2045 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region’s TPAs. TPAs 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.

The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting

⁶⁴ 2020–2045 RTP/SCS population growth forecast methodology includes data for years 2010, 2010, 2016, and 2045.

⁶⁵ Defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a major transit stop (rail or bus rapid transit station) with 15-minute or less service frequency during peak commute hours.

the State's GHG emission reduction goals.⁶⁶ Due to fuel economy and efficiency improvements, GHG emission rates of model year 2017 vehicles have decreased by 15 to 20 percent when compared to model year 2008 and earlier vehicles. However, for purposes of SB 375 emissions reduction targets, the fuel economy improvements have been largely excluded from the reduction calculation. The SB 375 target focuses on the amount of vehicle travel per capita. As discussed above, OPR recommended that achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals (i.e., SB 375 goal). The reductions generated by fuel economy improvements are already included as part of the State's GHG emissions reduction program and are not double counted in the SB 375 target calculation.

(4) Local

(a) *Green New Deal*

The City of Los Angeles addressed the issue of global climate change in *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming* (LA Green Plan/ClimateLA) 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.

In April 2019, the Green New Deal (Sustainable City Plan 2019), was released, consisting of a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.⁶⁷ L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAN that was released in 2015.⁶⁸ It augments, expands, and elaborates L.A.'s vision for a sustainable future and tackles the climate emergency with accelerated targets and new aggressive goals.

While not a plan adopted solely to reduce GHG emissions, within the Green New Deal, "Climate Mitigation," or reduction of GHG is one of eight explicit benefits that help define its strategies and goals.

⁶⁶ SCAG, *Final 2020–2045 RTP/SCS, Chapter 0: Making Connections, 2020*, p. 5.

⁶⁷ *City of Los Angeles. LA's Green New Deal, 2019.*

⁶⁸ *City of Los Angeles, Sustainable City pLAN, April 2015.*

(b) City of Los Angeles Green Building Code

On December 11, 2019, the Los Angeles City Council approved Ordinance No. 186,488, 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 2019 CALGreen Code. Projects filed on or after January 1, 2020, 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) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings.

(c) City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced as well as disposal energy averted. In 1989, California enacted AB 939, the California Integrated Waste Management Act, which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.

The City has developed and is in the process of implementing the Solid Waste Integrated Resources Plan, also referred to as the Zero Waste Plan, whose goal is to lead the City towards being a “zero waste” City by 2030. These waste reduction plans, policies, and regulations, along with Mayoral and City Council directives, have increased the level of waste diversion for the City to 76 percent as of 2013.⁶⁹ The RENEW LA Plan, aims to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources not going to disposal and achieving a diversion rate of 90 percent or more by 2025.⁷⁰ The City has also approved the Waste Hauler Permit Program (Ordinance No. 181,519, LAMC Chapter VI, Article 6, Section 66.32-66.32.5), which requires private waste haulers to obtain AB 939 Compliance Permits to transport construction and demolition waste to City-certified construction and demolition waste processors. The City’s Exclusive Franchise System Ordinance (Ordinance No. 182,986), among other requirements, sets a maximum annual disposal level and diversion requirements for franchised waste haulers to promote waste diversion from landfills and support the City’s zero waste goals. These

⁶⁹ *City of Los Angeles, Department of Public Works, LA Sanitation, Recycling.* www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=kq9mn3h5a_188, accessed January 27, 2021.

⁷⁰ *City of Los Angeles, RENEW LA, Five-Year Milestone Report, 2011.*

programs reduce the number of trips to haul solid waste and therefore reduce the amount of petroleum-based fuels and energy used to process solid waste.

(d) City of Los Angeles General Plan

The City does not have a General Plan Element specific to climate change and GHG emissions, and its General Plan does not have any stated goals, objectives, or policies specifically addressing climate change and GHG emissions. However, the following five goals from the City's General Plan Air Quality Element would also lead to GHG emission reductions:⁷¹

- Less reliance on single-occupancy vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal 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;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implement of conservation measures, including passive measures, such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

(e) Traffic Study Policies and Procedures

The City of Los Angeles Department of Transportation (LADOT) has developed the City Transportation Assessment Guidelines (TAG) (July 2019, updated July 2020) to provide the public, private consultants, and City staff with standards, guidelines, objectives, and criteria to be used in the preparation of a transportation assessment. The TAG establishes the reduction of vehicle trips and VMT as the threshold for determining transportation impacts and thus is an implementing mechanism of the City's strategy to reduce land use transportation-related GHG emissions consistent with AB 32, SB 32, and SB 375.

⁷¹ *City of Los Angeles, Air Quality Element, June 1991, pp. IV-1 to IV-4.*

d. Existing Conditions

(1) Existing Statewide GHG Emissions

GHG emissions 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 1 percent of global and 6 percent of national GHG emissions.⁷² California represents approximately 12 percent of the national population. Approximately 80 percent of GHGs in California consist of CO₂ produced from fossil fuel combustion. The current California GHG inventory compiles statewide anthropogenic GHG emissions and carbon sinks/storage from years 2000 through 2016.⁷³ It includes estimates for CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. The GHG inventory for California for years 2011 through 2017 is presented in Table IV.E-4 on page IV.E-35.

As shown in Table IV.E-4, the GHG inventory for California in 2019, the most recent year for which data is available, was 418.2 million MTCO_{2e}. Based on data presented above, the 2016 statewide GHG inventory fell below 1990 levels, which achieves the AB 32 target of reducing statewide GHG emissions to below 1990 levels (431 million MTCO_{2e}) by 2020.⁷⁴

(2) Existing Project Site Emissions

The Project Site is currently occupied by a surface parking area located in the northeast portion of the Project Site (Development Area) and six one- and two-story commercial structures located in the southern and western portions of the Project Site. The existing surface parking area includes approximately 84 parking spaces. The existing commercial structures contain approximately 33,828 square feet of floor area, providing a

⁷² CEC, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, CEC-600-2006-013, October 2006.

⁷³ 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.

⁷⁴ CARB, *Climate pollutants fall below 1990 levels for first time*, ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levels-first-time, accessed January 27, 2021.

**Table IV.E-4
California GHG Inventory
(million metric tons CO₂e)**

	2013	2014	2015	2016	2017	2018	2019
Transportation	161.24	162.56	166.19	169.76	171.18	169.63	166.14
<i>On Road</i>	147.15	147.85	151.2	155.16	156.57	154.57	151.58
Passenger Vehicles	111.52	112.2	166.32	119.02	120.12	119.48	119.11
Heavy Duty Trucks	35.62	35.65	34.88	36.14	36.45	35.09	32.47
<i>Ships & Commercial Boats</i>	3.86	3.95	3.89	3.72	3.82	3.74	3.84
<i>Aviation (Intrastate)</i>	3.93	3.9	4.22	4.44	4.68	4.65	4.36
<i>Rail</i>	2.4	2.63	2.42	2.17	1.83	2.22	1.6
<i>Off Road</i>	2.33	2.43	2.53	2.63	2.73	2.83	2.93
<i>Unspecified</i>	1.57	1.79	1.93	1.64	1.55	1.61	1.83
<i>Percent of Total Emissions</i>	36%	37%	38%	40%	40%	40%	40%
Electric Power	91.39	88.85	84.83	68.57	62.13	63.11	58.83
<i>In-State Generation</i>	51.41	52.05	50.88	42.2	38.18	38.54	37.16
Natural Gas	47.66	47.07	46.19	38.18	34.65	35	33.65
Other Fuels	2.88	4.11	3.57	2.61	2.66	2.71	2.72
Fugitive and Process Emissions	0.87	0.88	1.12	1.42	0.88	0.83	0.8
<i>Imported Electricity</i>	39.99	36.8	33.94	26.36	23.95	24.57	21.67
<i>Unspecified Imports</i>	11.83	13.45	11.22	9.69	8.85	11.57	9.9
<i>Specified Imports</i>	28.15	23.35	22.72	16.67	15.1	13	11.77
<i>Percent of Total Emissions</i>	20%	20%	19%	16%	15%	15%	14%
Commercial and Residential	44.18	38.23	38.84	40.61	41.27	41.36	43.81
<i>Residential Fuel Use</i>	28.99	23.8	24.22	25.25	25.99	25.74	27.95
Natural Gas	26.53	21.58	21.9	22.8	23.62	23.23	25.31
Other Fuels	1.59	1.34	1.43	1.56	1.48	1.62	1.74
Fugitive Emissions	0.88	0.89	0.89	0.89	0.89	0.9	0.9
<i>Commercial Fuel Use</i>	13.29	12.49	12.69	13.14	12.99	13.46	13.67
Natural Gas	11.28	10.4	10.5	10.9	11.06	11.13	11.55
Other Fuels	2	2.09	2.18	2.24	1.93	2.32	2.12
<i>Commercial Cogeneration Heat Output</i>	0.5	0.52	0.52	0.78	0.85	0.72	0.74
<i>Other Commercial and Residential</i>	1.4	1.41	1.42	1.43	1.44	1.44	1.45
<i>Percent of Total Emissions</i>	10%	9%	9%	9%	10%	10%	10%
Industrial	91.67	92.51	90.27	88.99	88.79	89.17	88.18
<i>Refineries</i>	29.43	29.78	28.35	29.78	30.05	30.07	28.82
<i>General Fuel Use</i>	19.47	19.91	19.41	19.24	18.79	18.56	19.83
Natural Gas	14.37	15.38	14.63	15.42	15.01	15.49	16.87
Other Fuels	5.1	4.53	4.78	3.82	3.78	3.07	2.96
<i>Oil & Gas Extraction^a</i>	18.92	19.2	19.27	16.75	16.87	16.68	16.58
Fuel Use	16.94	17.17	17.22	14.84	14.94	14.61	14.31
Fugitive Emissions	1.98	2.03	2.05	1.91	1.93	2.08	2.27

Table IV.E-4 (Continued)
California GHG Inventory
(million metric tons CO₂e)

	2013	2014	2015	2016	2017	2018	2019
<i>Cement Plants</i>	7.21	7.66	7.47	7.6	7.66	7.88	7.78
Clinker Production	4.47	4.78	4.69	4.67	4.85	4.96	4.92
Fuel Use	2.74	2.88	2.77	2.93	2.81	2.91	2.86
<i>Cogeneration Heat Output</i>	9.01	8.25	7.98	7.84	7.59	8.1	7.39
<i>Other Process Emissions</i>	7.64	7.69	7.8	7.78	7.83	7.87	7.79
Natural Gas Transmission & Distribution	3.82	3.87	3.94	3.99	4.01	4.02	4.09
Manufacturing	0.19	0.16	0.18	0.1	0.11	0.1	0.11
Wastewater Treatment	1.85	1.86	1.85	1.85	1.86	1.92	1.92
Other	1.78	1.79	1.82	1.84	1.85	1.83	1.67
<i>Percent of Total Emissions</i>	20%	21%	20%	21%	21%	21%	21%
Recycling and Waste	8.35	8.4	8.47	8.57	8.66	8.74	8.85
<i>Landfills^b</i>	8.05	8.09	8.15	8.23	8.31	8.37	8.48
<i>Composting</i>	0.3	0.31	0.33	0.34	0.35	0.36	0.38
<i>Percent of Total Emissions</i>	2%	2%	2%	2%	2%	2%	2%
High Global Warming Potential	16.75	17.73	18.6	19.24	19.97	20.38	20.58
<i>Ozone Depleting Substance Substitutes</i>	16.38	17.42	18.32	19	19.64	20.9	20.3
<i>Electricity Grid SF6 Losses^c</i>	0.29	0.17	0.14	0.1	0.18	0.14	0.14
<i>Semiconductor Manufacturing^b</i>	0.08	0.14	0.14	0.14	0.15	0.15	0.14
<i>Percent of Total Emissions</i>	4%	4%	4%	5%	5%	5%	5%
Agriculture^d	33.83	34.68	33.53	33.29	32.49	32.75	31.75
<i>Livestock</i>	22.92	23.24	22.66	22.57	22.89	22.92	22.6
Enteric Fermentation (Digestive Process)	11.22	11.28	10.95	10.93	11.14	11.13	10.97
Manure Management	11.71	11.96	11.7	11.64	11.75	11.69	11.63
<i>Crop Growing & Harvesting</i>	7.2	6.92	6.48	6.75	6.49	6.7	6.62
Fertilizers	5.52	5.45	4.93	5.03	5.02	5.07	5.03
Soil Preparation and Disturbances	1.59	1.39	1.47	1.63	1.38	1.54	1.49
Crop Residue Burning	0.08	0.08	0.08	0.08	0.09	0.09	0.1
<i>General Fuel Use</i>	3.71	4.51	4.4	3.97	3.11	3.23	2.54
Diesel	2.53	3.39	3.66	3.21	2.4	2.48	1.85
Natural Gas	0.69	0.63	0.64	0.72	0.67	0.74	0.68
Gasoline	0.49	0.49	0.1	0.04	0.05	0.01	0.01
Other Fuels	0	0	0	0	0	0	0
<i>Percent of Total Emissions</i>	8%	8%	8%	8%	8%	8%	8%
Total Net Emissions	447.4	443	440.7	429	424.5	425.1	418.2

^a Reflects emissions from combustion of fuels plus fugitive emissions.

^b These categories are listed in the Industrial sector of CARB's GHG Emission Inventory sectors.

**Table IV.E-4 (Continued)
California GHG Inventory
(million metric tons CO₂e)**

	2013	2014	2015	2016	2017	2018	2019
^c This category is listed in the Electric Power sector of CARB's GHG Emission Inventory sectors. ^d Reflects use of updated USEPA models for determining emissions from livestock and fertilizers. Source: California GHG Inventory for 2000–2019—by Category as Defined in the 2008 Climate Change Scoping Plan million metric tons of CO ₂ e—(based upon IPCC Fourth Assessment Report's Global Warming Potentials).							

Variety of retail, restaurant, and service uses. Approximately 4,000 square feet of the existing commercial floor area has been vacant since prior to 2018. Mobile source emissions are generated by motor vehicle trips to and from the Project Site. Area source emissions are generated by the use of maintenance equipment, landscape equipment, and products that contain solvents. Energy source emissions are typically associated with building natural gas usage. Table IV.E-5 below presents an estimate of the existing emissions within the Project Site.

**Table IV.E-5
Existing Project Site Annual GHG Emissions Summary**

Scope	Metric Tons of Carbon Dioxide Equivalent ^{a,b} (MTCO ₂ e)
Area	<1
Energy	170
Mobile	886
Solid Waste	4
Water/Wastewater Generation	18
Total Emissions	1,078

Numbers may not add up exactly due to rounding.

^a CO₂e was calculated using CalEEMod and the results are provided in Section 2.0 of the CalEEMod output file (Artisan Existing (2020)) within Appendix B of this Draft EIR.

^b The 4,000 square feet of existing vacant commercial space is not included in the estimate of existing use emissions.

Source: Eyestone Environmental, 2021.

3. Project Impacts

a. Thresholds of Significance

(1) State CEQA Guidelines Appendix G

In accordance with Appendix G of the State 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 provides that a lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project. It also states that the lead agency shall have the discretion to determine, in the context of a particular project, whether to: (1) quantify greenhouse gas emissions resulting from a project; and/or (2) rely on a qualitative analysis or performance-based standards. Lead agencies should consider several factors when determining the significance of GHG emissions from a project: the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; whether a project exceeds a significance threshold that the lead agency determines applies to the project; and 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 greenhouse gas emissions.

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 cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130(f)).⁷⁵ As a note, the CEQA Guidelines were amended in

⁷⁵ See, generally, 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.

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 that would avoid or substantially lessen the cumulative problem within the geographic area of the project.⁷⁶ 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.⁷⁷ 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."⁷⁸ Therefore, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of a less than significant impact for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.⁷⁹

The City has not adopted a numeric threshold for the analysis of GHG impacts. As noted above, CEQA Guidelines Section 15064.4(b)(2) allows the City to determine a threshold of significance that applies to the Project, and accordingly the threshold of significance applied here is 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 GHG emissions. For the Project, as a land use development project, the applicable adopted regulatory plan to reduce GHG emissions is SCAG's 2020–

⁷⁶ 14 CCR § 15064(h)(3).

⁷⁷ 14 CCR § 15064(h)(3).

⁷⁸ 14 CCR § 15064(h)(3).

⁷⁹ See, for example, *San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR—2030 (June 25, 2014)*, in which the SJVAPCD "determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA..." Further, the South Coast Air Quality Management District (SCAQMD) has taken this position in CEQA documents it has produced as a lead agency. SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate SCAQMD has applied its 10,000 MTCO₂e/yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See: SCAQMD, *Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project*, SCH No. 2012041014 (October 2014); SCAQMD, *Final Negative Declaration for Phillips 66 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project*, SCH No. 2013091029 (December 2014); *Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA*, SCH No. 2014101040 (December 2014); and *Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project*, SCH No. 2014121014 (April 2014).

2045 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 qualitative consistency with regulations or requirements adopted by the *2008 Climate Change Scoping Plan* and subsequent updates, and the City of Los Angeles’ Green New Deal.

(2) SCAQMD Thresholds

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

(3) 2006 L.A. CEQA Thresholds Guide

The City’s *L.A. CEQA Thresholds Guide* does not identify criteria to evaluate GHG emissions impacts. Thus, the potential for the Project to result in impacts from GHG emissions is based on the State CEQA Guidelines Appendix G thresholds above. To answer both of those threshold questions, the City considers whether the Project is consistent with the following plans:

- *2008 Climate Change Scoping Plan* and Subsequent Updates
- SCAG’s 2020–2045 RTP/SCS consistent with SB 375
- City of Los Angeles’ Green New Deal

As discussed above, OPR has noted that lead agencies “should make a good-faith effort to calculate or estimate GHG emissions” from a project.⁸⁰ GHG emissions are quantified below, consistent with OPR guidelines.

b. Methodology

Amendments to CEQA Guidelines Section 15064.4 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 quantify GHGs resulting from a project; and/or rely on a qualitative analysis. The amendments to CEQA Guidelines Section 15064.4 do not establish a threshold of

⁸⁰ *OPR Technical Advisory*, p. 5.

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 suggested by other experts, such as CAPCOA, so long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines 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 therefore GHG emissions should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15064(h)(3)).⁸¹

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not adopted a local climate action plan for reducing 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. Based on CEQA case law, when no guidance exists, the lead agency may look to and assess general compliance with comparable regulatory schemes.⁸²

In evaluating climate change impacts, the OPR recommends consideration of the project's consistency with the State's long-term climate goals or strategies to reduce GHG emissions.⁸³ The lead agency may also use modeling to estimate greenhouse gas emissions from a project.⁸⁴ This allows a lead agency to quantify greenhouse gas emissions resulting from a project. Here, any quantification is for informational purposes, and is not used for a comparative analysis or as a threshold of significance.

⁸¹ 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*.

⁸² See *Protect Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1107 [“[A] lead agency’s use of existing environmental standards in determining the significance of a project’s environmental impacts is an effective means of promoting consistency in significance determinations and integrating CEQA environmental review activities with other environmental program planning and resolution.”]. Lead agencies can, and often do, use regulatory agencies’ performance standards. A project’s compliance with these standards usually is presumed to provide an adequate level of protection for environmental resources. See, e.g., *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 99 (upholding use of regulatory agency performance standard).

⁸³ *Office of Planning and Research, Proposed Updates to the CEQA Guidelines—Final (Nov 2017)*.

⁸⁴ *CEQA Guidelines Section 15064.4*.

In summary, as the lead agency, the City has determined that a project's significant impact with regard to climate change be evaluated solely on the basis of consistency with the climate change plans. This approach is aligned with the threshold of significance established by the City for the Project, which is 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 GHG emissions, as noted above.

For informational purposes only, this Draft EIR also estimates the quantity of GHGs the Project would emit 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, this quantification is neither a threshold of significance, nor used for quantitative comparative purposes.

(1) Consistency with Plans

The Project's GHG impacts were evaluated by assessing the Project's consistency with applicable statewide, regional, and local GHG reduction plans and strategies. As discussed previously, the Project will be evaluated for consistency with AB 32's *2008 Climate Change Scoping Plan* and subsequent updates, SCAG's 2020–2045 RTP/SCS, and the Green New Deal, a Mayoral initiative.

OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. On a statewide level, the *2008 Climate Change Scoping Plan* and subsequent updates provide measures to achieve AB 32 and SB 32 targets. On a regional level, SCAG's 2020–2045 RTP/SCS contains measures to achieve VMT reductions required under SB 375. The City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan as recommended in the relevant amendments to the CEQA Guidelines. The City's Green New Deal is not an adopted plan or directly applicable to private development projects. However, the City's Green New Deal, a mayoral initiative, includes short-term and long-term aspirations pertaining to climate change and this analysis addresses consistency with these strategies and goals. Thus, if the Project is designed in accordance with these policies and regulations, the Project would result in a less than significant impact pursuant to CEQA Guidelines Section 15064.4, because it would be consistent with the overarching State regulations on GHG reduction (e.g., AB 32, SB 32, SB 375).

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 AB 32's *2008 Climate Change Scoping Plan* and subsequent updates, SCAG's 2020–2045 RTP/SCS, and the City's Green New Deal.

(2) Quantification of Emissions

In view of the above considerations, the City has determined to quantify the Project's total annual GHG emissions, taking into account the GHG emission reduction measures that would be incorporated into the Project's design. However, given the lack of a formally adopted numerical significance threshold or a formally adopted local plan for reducing GHG emissions applicable to this Project, the City has determined to assess the significance of the Project's GHG emissions by comparing them to the SCAQMD's draft Tier 4 performance standards in the context of an assessment of the Project's consistency with regulatory schemes, comparable to formally adopted local GHG emission reduction plans, that are designed to reduce GHG emissions by encouraging development located and designed to result in the efficient use of resources.

By quantifying the Project's annual GHG emissions, this Draft EIR will provide context for the Project's annual GHG emissions; by then comparing the Project's GHG emissions to a Project without Reduction Features scenario, as defined by CARB's most updated projections for AB 32, this Draft EIR will provide quantitative metrics for describing the GHG footprint of the Project and the level of GHG reductions incorporated into the Project.⁸⁵

However, this comparison is being done for informational purposes only, due to the issues surrounding using the Project without Reduction Features scenario comparison as a threshold. The Project without Reduction Features scenario does not account for energy efficiency measures that would exceed the Title 24, Part 6 Building Energy Efficiency Standards, and does not account for trip reductions from co-location of uses, availability of public transportation, and the Project's TDM measures. Moreover, the use of this comparison as a threshold of significance, by itself, has also been called into question recently by the California Supreme Court.⁸⁶ Therefore, the City has determined to focus its

⁸⁵ *The comparison to a 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 regulatory compliance measures.*

⁸⁶ *See Center for Biological Diversity v. California Department of Fish and Wildlife and Newhall Land and Farming*, 62 Cal. 4th 204, 220 (2015). *While the court cautioned against relying solely on a single quantitative method to justify a no-significance finding, the court provided guidance on how local agencies may evaluate project-specific GHG emissions that sufficiently satisfy CEQA's demands.*

assessment of the Project's GHG emissions in relation to the Project's location and design and its consistency with local City of Los Angeles regulatory schemes, as explained below.

(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.⁸⁷ 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."⁸⁸ 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 the Project. The information provided in this section is consistent with the General Reporting Protocol's reporting requirements. A detailed discussion of the GHG methodology is included in Appendix B of this Draft EIR.

The General Reporting Protocol and the USEPA recommend the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions.⁸⁹ They include the following:

- Scope 1: Direct, onsite combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Scope 2: Indirect, offsite 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 (e.g., energy used to convey, treat, and distribute water and wastewater).⁹⁰

The General Reporting Protocol provides a range of basic calculations methods. However, the General Reporting Protocol calculations are typically designed for existing

⁸⁷ California Climate Action Registry, *General Reporting Protocol Version 3.1, January 2009*.

⁸⁸ California Climate Action Registry, *General Reporting Protocol Version 3.1, January 2009*.

⁸⁹ USEPA, *Greenhouse Gases at EPA*, www.epa.gov/greeningepa/greenhouse-gases-epa, accessed January 27, 2021.

⁹⁰ 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.

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.⁹¹ 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.”⁹² Therefore, direct and indirect emissions have been calculated for the Project and are included in Appendix B of this Draft EIR.

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, rather than causing “new” GHG emissions. 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, who provided data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) to account for local requirements and conditions. The model is considered by SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.⁹³

⁹¹ 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.*

⁹² OPR *Technical Advisory—CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review, June 2008, p. 5.*

⁹³ California Air Pollution Control Officers Association, *California Emissions Estimator Model, CalEEMod™, www.caleemod.com.*

(4) Construction

The Project's construction emissions were calculated using CalEEMod Version 2020.4.0. 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 forecast based on the construction assumptions included in Appendix B and applying the mobile-source emissions factors derived from CalEEMod.

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

In accordance with SCAQMD's guidance, GHG emissions from construction were amortized (i.e., averaged annually) over the lifetime of the Project. 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. Therefore, SCAQMD recommended that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.⁹⁴ Thus, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

(5) Operation

Similar to construction, the SCAQMD-recommended CalEEMod is used to calculate potential direct and indirect 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 within the proposed new building and the 4,000 square feet of floor area that is currently vacant and assumed to be occupied by a high-turnover restaurant in the future.⁹⁵ CalEEMod default values for generation/usage rates, GHG

⁹⁴ SCAQMD, *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*, 2008.

⁹⁵ For a conservative analysis, and consistent with the Transportation Assessment included in Appendix I of this Draft EIR, existing mobile source emissions were considered to be part of the Project's operational emissions.

emission factors, and GWP values were used in the evaluation of operational GHG emissions from the Project.

Area source emissions include landscaping, natural gas combustion (HVAC and water heaters), and architectural coating activities, the emissions are based on the size of the land uses (e.g., square footage), the GHG emission factors for fuel combustion, and the GWP values for the GHGs emitted.

Emissions of GHGs associated with electricity demand 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. 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 year 2025 (616 lbs. CO₂ per MWh). LADWP's carbon intensity projections also take into account SB 100 and SB 350 RPS requirements for renewable energy.

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 GHG emissions are calculated based on emission factors and an estimate of the Project's trips and annual VMT, which was provided in the Project's Transportation Assessment included in Appendix I of this Draft EIR.⁹⁶ As discussed in Section IV.I, Transportation, of this Draft EIR, the Project VMT and trips were derived from the LADOT VMT Calculator.⁹⁷ The VMT Calculator was developed by the City and LADOT to comply with SB 743 which requires lead agencies to adopt VMT criteria to determine transportation related impacts. The LADOT-derived VMT values account for the daily and seasonal variations in trip frequency and length associated with new resident, employee, and visitor trips to and from the Project Site and other activities that generate a vehicle trip.

⁹⁶ *Gibson Transportation Consulting, Inc., Transportation Assessment for the Artisan Hollywood Project, December 2020. The Transportation Assessment includes an addendum that consists of revised VMT Analysis Worksheets (Appendix D of the Transportation Assessment). The worksheet inputs were amended to more accurately account for current conditions with regard to existing floor area that has been vacant for several years. The revised worksheets were reviewed by LADOT and are included as part of LADOT's Assessment Letter dated March 9, 2021. The Transportation Assessment and the Addendum (herein collectively referred to as the Transportation Assessment) are included in Appendix I of this Draft EIR.*

⁹⁷ *As previously noted, existing mobile source emissions were conservatively considered to be part of the Project's operational emissions.*

In addition to VMT, the number of vehicle trips generated by the Project was also accounted for in the GHG emissions calculations.

Stationary source GHG 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 size of the Project's proposed 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 size of the land uses, the water demand factors, the electrical intensity factors for water supply, treatment, and distribution, electrical intensity factors for wastewater treatment, the GHG emission factors for the electricity utility provider, and the GWP values for the GHGs emitted. CalEEMod uses electricity intensity factors obtained from the 2006 CEC report, "Refining Estimates of Water-Related Energy Use in California" which represent the amount of electricity needed to transport and treat water. Water usage factors are obtained from surveys conducted throughout California for various land uses. Project water consumption GHG emissions are then quantified based on electricity usage and carbon intensity factors specific to electricity providers described above.

The GHG emissions calculations for the Project include credits or reductions for implementation of applicable 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., 2019 Title 24 Standards, Pavley I Standards, full implementation of California's Statewide RPS beyond current levels of renewable energy assumed under SB 350, and the California LCFS).⁹⁸ It should be noted that GHG reductions due to LCFS are currently not incorporated into CalEEMod. The CalEEMod model incorporates EMFAC2017 emission factors which do not take into account the most recent 2017 LCFS updates. As a conservative assumption, GHG emissions reductions resulting from the LCFS updates were not included in the Project's emissions inventory. 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 features (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 in CalEEMod and not

⁹⁸ *Project design features are based on relevant year 2020 targets established by AB 32 and the current CARB Scoping Plan Update.*

already in place but are anticipated 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 a number of policies and programs aimed at reducing GHG emissions from the land use and transportation sectors to meet the State's long-term climate goals.

c. Project Design Features

The following project design features are applicable to the Project with regard to GHG emissions and will be incorporated into the Project:

GHG-PDF-1: The design of the new building shall incorporate features of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) program to be capable of meeting the standards of LEED® Certified or equivalent green building standards. Specific sustainability features that are integrated into the Project design to enable the Project achieve LEED® Certification or equivalency shall include, but not be limited to, the following:

- Exceeding Title 24, Part 6, California Energy Code baseline standard requirements by 10 percent for energy efficiency, based on the 2019 Building Energy Efficiency Standards requirements.⁹⁹
- Incorporate energy-saving technologies and components to reduce the Project's electrical use profile. Examples of these components include the use of light-emitting diode (LED) and other efficient lighting technology, energy saving lighting control systems such as light- and motion-detection controls (where applicable), and energy efficient heating, ventilation, and air conditioning (HVAC) equipment.
- HVAC mechanical systems and building lighting shall be controlled with timing systems to prevent accidental or inappropriate conditioning or lighting of unoccupied space.
- Demand control ventilation shall be utilized in HVAC systems, and refrigerants in HVAC equipment shall have low GHG emission rates. In particular, the HVAC system shall be designed to optimize exterior and interior air-flow to ensure healthy indoor air quality.

⁹⁹ *In order to conduct a conservative analysis, this 10 percent exceedance of the Title 24 2019 Building Energy Efficiency Standards requirements was not factored into the analysis.*

GHG-PDF-2: The Project shall prohibit the use of natural gas-fueled fireplaces in the proposed residential units.

In addition, as part of the Project, the Applicant would incorporate project features to further support and promote environmental sustainability. The sustainability features to be incorporated into the Project would include, but would not be limited to the following: photovoltaic cells; electric vehicle charging stations (discussed further below); material recycling stations; highly efficient HVAC systems; energy-efficient wall insulation and glazing units; WaterSense-labeled plumbing fixtures and weather-based controller and drip irrigation systems to promote a reduction of indoor and outdoor water use; Energy Star-labeled appliances; and water-efficient landscape design (i.e., grouping plants according to their water needs, use of native and low-water plants, etc.). The Project would comply with all applicable State and local regulatory requirements, including the provisions set forth in the City's Green Building Ordinance. The Project would comply with the City's EV charging requirements which specifies that 10 percent of new parking spaces would require EV charging equipment. In addition, 30 percent of all new parking spaces would be required to be EV "ready" which will be capable of supporting future EV charging equipment.¹⁰⁰ The Project would also include water conservation and waste reduction features as set forth in Project Design Feature WAT-PDF-1 in Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR.

d. Analysis of Project Impacts

Threshold (a): Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold (b): Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG.

(1) Impact Analysis

(a) Consistency with Applicable Plans and Policies

As discussed above under Subsection 3.a(1), compliance with applicable GHG emissions reduction plans would result in a less-than-significant Project and cumulative impact. The following section describes how 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, SCAG's 2020–2045 RTP/SCS, and the

¹⁰⁰ City of Los Angeles Ordinance No. 186,485. December 11, 2019.

City's Green New Deal. As shown herein, the Project would be consistent with the applicable GHG reduction plans and policies.

(i) Climate Change Scoping Plan

AB 32's *2008 Climate Change Scoping Plan* and subsequent updates have a range of GHG reduction actions that 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. Beyond the plan-level goals and actions in the *2008 Climate Change Scoping Plan* and subsequent updates, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA. Absent conformity with an adequate geographically-specific GHG reduction plan, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. The following discussion demonstrates how the Project's consistency with pertinent reduction actions in the *2008 Climate Change Scoping Plan* and subsequent updates reduce Project-related GHG emissions.

Provided in Table IV.E-6 on page IV.E-52 is an evaluation of applicable reduction actions/strategies outlined in the *2008 Climate Change Scoping Plan* and subsequent updates that through implementation would indirectly reduce Project GHG emissions.¹⁰¹ Further evaluation of project design features and specific applicable policies and measures in the *2008 Climate Change Scoping Plan* and subsequent updates is provided in Table IV.E-7 on page IV.E-54. As detailed therein, the Project would not conflict with the *2008 Climate Change Scoping Plan* and subsequent updates, which is intended to reduce GHG emissions.

Therefore, the Project would be consistent with the GHG reduction-related actions and strategies in AB 32's *2008 Climate Change Scoping Plan* and subsequent updates, and impacts would be less than significant.

(ii) 2020–2045 RTP/SCS

The purpose of SB 375 is to implement the State's GHG emissions reduction goals by integrating land use planning with the goal of reducing car and light-duty truck travel. Under SB 375, the primary goal of the 2020–2045 RTP/SCS is to provide a framework for future growth that will decrease per capita GHG emissions from cars and light-duty trucks

¹⁰¹ *An evaluation of reduction actions/strategies applicable to stationary sources is not necessary, as the Project's only potential stationary sources emissions will be created by emergency generators which would only be used in an emergency.*

**Table IV.E-6
Regulatory Compliance Measures within the 2008 Climate Change Scoping Plan
and Subsequent Updates**

<p>Regulatory Compliance Measures</p>
<p>Energy</p> <p>RPS Program and SB 2X: The California RPS program (Updated under SB 2X) requires both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. SB 350 further requires 50 percent renewables by 2030.^a In 2020, LADWP indicated that 34 percent of its electricity came from renewable resources in Year 2019.^b The CalEEMod default carbon intensity for electricity generated by LADWP (pounds of CO₂e per MWh) is based on a year 2007 renewables portfolio of 8 percent and was therefore updated within CalEEMod to reflect the year 2024 renewables portfolio. Please note that under recently passed SB 100, LADWP is required to generate electricity that would increase renewable energy resources to 50 percent by 2026 and, 60 percent by 2030, and 100 percent by 2045. The Project complies with these percentage renewable requirements because the Project is served by LADWP.</p> <p>The electricity-related GHG emissions provided in Table IV.E-11 on page IV.E-75 conservatively do not account for the additional 42-percent reduction that would be achieved by LADWP in year 2045 (difference between the 70 percent renewables assumed for the buildout year of 2025 and 100 percent required under SB 2X in year 2045).</p> <p>SB 350: 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 (discussed below) and utility-sponsored programs such as rebates for high-efficiency appliances, HVAC systems, and insulation. The Project would further support this regulation since Project Design Feature GHG-PDF-1 would require the Project to implement measures to reduce overall energy usage compared to baseline conditions.</p> <p>Cap-and-Trade Program: As required by AB 32 and the <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, this regulatory program applies to electric service providers and not directly to land use development. The declining limit on covered sources of GHG emissions creates a powerful economic incentive for significant investment in cleaner, more efficient technologies. That being said, the Project would benefit from this regulatory program in that the GHG emissions associated with the Project’s electricity usage per year presented in Table IV.E-11 on page IV.E-75 would indirectly be covered by the Cap-and-Trade Program.</p>
<p>Mobile</p> <p>Advanced Clean Cars Program: CARB approved the Advanced Clean Cars Program in 2012 which establishes an emissions control program for model year 2017 through 2025 and increasing the number of zero emission vehicles manufactured in the 2018 through 2025 model years which would reduce GHG emissions by 34 percent in comparison to the 2012 model year vehicles. Standards under the Advanced Clean Cars Program apply to all passenger and light duty trucks within California and indirectly used by residents, employees, and deliveries to the Project. Mobile source GHG emissions provided in Table IV.E-11 on page IV.E-75 conservatively do not include this additional 34-percent reduction in mobile source emissions as the CalEEMod model default fleet mix for the Air Basin does not yet account for this regulation. The Project would further support this regulation since the Applicant will provide at least 30 percent of the total parking spaces provided to be capable of supporting future EVSE as dictated.</p> <p>The <i>2008 Climate Change Scoping Plan</i> recommends additional mobile source strategies through the extension of the Advanced Clean Cars Program which are expected to increase GHG stringency on light duty autos and continue adding zero emission and plug-in vehicles through 2030. 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</p>

Table IV.E-6 (Continued)
Regulatory Compliance Measures within the 2008 Climate Change Scoping Plan

Regulatory Compliance Measures

achieve zero emission trucks under the Advanced Clean Local Trucks (Last Mile Delivery) Program.^{c,d} Although the Innovative Clean Transit and Advanced Clean Local Truck Programs have not yet been established, the Project would also indirectly benefit from these measures once adopted. However, the Project's GHG emissions inventory conservatively does not account for GHG emissions reductions due to these measures.

Low Carbon Fuel Standard (LCFS): The current LCFS requires a reduction of at least 7.5 percent in the carbon intensity (CI) of California's transportation fuels by 2020. CalEEMod includes implementation of LCFS into the calculation of GHG emissions from mobile sources. However, the LCFS was amended in September 2018 to target a 20-percent reduction in CI from a 2010 baseline by 2030.^e As discussed previously, the CalEEMod model does not take into account the more recent updates to LCFS. The Project's emissions inventory conservatively does not take credit for additional GHG reductions due to the more recent LCFS requirements, but this additional 10-percent reduction in CI would indirectly reduce the Project's mobile source emissions.

^a SB 350 (2015–2016 Regular Session) Stats 2015, Ch. 547.

^b LADWP, 2019 Power Content Label, October 2020.

^c CARB, Advance Clean Cars, 2017 Midterm Review Report, ww2.arb.ca.gov/resources/documents/2017-midterm-review-report, accessed November 11, 2020.

^d CARB, Advanced Clean Local Trucks (Last mile delivery and local trucks), ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks, accessed October 20, 2020.

^e CARB, LCFS Regulation, ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard/lcfs-regulation, accessed November 11, 2020.

Source: Eyestone Environmental, 2021.

**Table IV.E-7
Consistency Analysis—2008 Climate Change Scoping Plan and Subsequent Updates**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>California Code of Regulations (CCR), Title 20: The 2016 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. Presented in the 2008 Scoping Plan. Measure E-1 and CR-1.</p>	State and CEC	<p>No Conflict. These standards are included in default parameters provided in Table IV.E-11 on page IV.E-75.</p>
<p>CCR, Title 24, Building Standards Code: The 2019 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.^a</p> <p>The California Green Building Standards Code (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 (e.g., new residential and non-residential buildings shall demonstrate a 20-percent overall water use reduction), material conservation, and internal air contaminants.</p> <p>Presented in the 2017 Update to the Scoping Plan, Appendix H.</p>	State and CEC	<p>No Conflict. Consistent with regulatory requirements, the Project shall comply with applicable provisions of the 2020 Los Angeles Green Building Code that in turn require compliance with mandatory standards included in the CALGreen Code. The 2019 Title 24 standards represent “challenging but achievable design and construction practices” and as discussed above are substantially more stringent than the 2016 Title standards. In addition, Project Design Feature GHG-PDF-1 would require the design of the new buildings to incorporate features to further reduce energy usage by improving upon the Title 24, Part 6, California Energy Code baseline standard requirements by 10 percent for energy efficiency (based on the 2019 Building Energy Efficiency Standards requirements).</p> <p>The Project would also comply with applicable provisions of the 2020 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). Water usage rates were calculated consistent with the requirements under City of Los Angeles Ordinance No. 184,248, 2016 California Plumbing Code, 2019 CALGreen, 2017 Los Angeles Plumbing Code, and 2020 Los Angeles Green Building Code and reflect an approximately 20-percent reduction in water usage as compared to the base demand provided in CalEEMod. The Project’s reduction in water usage would also reduce energy and associated emissions required to pump and treat water.</p>
<p>Senate Bill (SB) 375: SB 375 requires integration of planning processes for transportation, land-use and housing.</p>	State, CARB	<p>No Conflict. SB 375 requires SCAG to direct the development of the SCS for the region. The Project is in an infill location with</p>

**Table IV.E-7 (Continued)
Consistency Analysis—2008 Climate Change Scoping Plan and Subsequent Updates**

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>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. Presented in the 2017 Update to the Scoping Plan, Appendix H3.</p>	<p>Regional, SCAG</p>	<p>convenient access to public transit and opportunities for walking and biking would result in a reduction of vehicle trips, VMT, and GHG emissions. Specifically, the Project Site is located in a transit-rich neighborhood with bus stops along Sunset Boulevard and the Metro B Line Hollywood/Vine Station within 1,000 feet of the Project Site. In addition, the Project Site's proximity to a variety of commercial uses and services would encourage residents, visitors, and employees of the Project Site to walk to nearby destinations to meet their shopping and entertainment needs, thereby reducing VMT and GHG emissions. 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 updates, CARB has adopted a passenger vehicle related GHG reduction of 19 percent for 2035 for the SCAG region, which has been incorporated into the 2020–2045 RTP/SCS. As discussed below, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 32-percent reduction in overall VMT and resultant GHG emissions compared to baseline ITE trip generation rates. This reduction in VMT would support the 2020–2045 RTP/SCS's goal of achieving an estimated 19-percent decrease in per capita GHG emissions from passenger vehicles by 2035. Therefore, the Project would not conflict with and, thus, would be consistent with SB 375, the reduction in passenger vehicle GHG emissions per capita goals provided in the 2020–2045 RTP/SCS.</p>
<p>By 2019, adjust performance measures used to select and design transportation facilities.</p> <ul style="list-style-type: none"> • 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.). • Presented in the 2017 Update to the Scoping Plan, Table 17. 	<p>CalSTA and SGC, OPR, CARB, GoBiz, IBank, DOF, CTC, Caltrans</p>	<p>No Conflict. The Project would not involve construction of transportation facilities. However, the Project Site is located near public transit service in the vicinity of the Project Site with multiple local and regional bus lines provided by Metro and LADOT. The Project benefits from these transit options by encouraging use of mass transit resulting in a reduction of Project-related vehicle trips to and from the Project Site.</p>

Table IV.E-7 (Continued)
Consistency Analysis—2008 Climate Change Scoping Plan and Subsequent Updates

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>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).</p> <p>Presented in the 2017 Update to the Scoping Plan, Table 17.</p>	<p>CalSTA, Caltrans, CTC, OPR/SGC, CARB</p>	<p>No Conflict. The Project would support this policy since the Applicant would provide electric vehicle charging stations and electric vehicle supply wiring consistent with City regulatory requirements.</p>
<p>CCR, Title 24, Building Standards Code: 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> <p>Presented in the 2017 Update to the Scoping Plan, Appendix H3.</p>	<p>State</p>	<p>No Conflict. The Project would comply with applicable provisions of the 2020 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). Water usage rates were calculated consistent with the requirements under City of Los Angeles Ordinance No. 184,248, 2016 California Plumbing Code, 2019 CALGreen, 2017 Los Angeles Plumbing Code, and 2020 Los Angeles Green Building Code and reflect an approximately 20-percent reduction in water usage as compared to the base demand provided in CalEEMod. The Project's reduction in water usage would also reduce energy and associated emissions required to pump and treat water.</p>
<p>Million Solar Roofs Program: The program is implemented through SB 1 (Murray, 2006), which provides up to \$3.3 billion in financial incentives for the installation of residential, commercial and institutional solar PV programs. Presented in the 2008 Climate Change Scoping Plan.</p>	<p>State</p>	<p>No Conflict. The Project would comply with Title 24 which requires that rooftop areas on high-rise multi-family buildings and non-residential buildings set aside a minimum area for potential installation of solar panels at a later date. Thus, the Project would be considered "solar-ready." If solar panels are to be installed at a later date, the Project would be eligible for the financial incentives offered by this program.</p>
<p>Senate Bill X7-7: 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 2008 Climate Change Scoping Plan. Reduction in water consumption directly reduces the energy necessary</p>	<p>State</p>	<p>No Conflict. As discussed above under Title 24, the Project would incorporate water conservation features that would contribute towards meeting this performance-based standard. Project Design Feature WAT-PDF-1 in Section IV.K.1, Utilities and Service Systems---Water Supply and Infrastructure, of this Draft EIR, provides a specific list of water conservation measures. Examples include: high-efficiency Energy Star-rated clothes and dishwashers, drought tolerant plants, and drip/subsurface</p>

Table IV.E-7 (Continued)
Consistency Analysis—2008 Climate Change Scoping Plan and Subsequent Updates

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
<p>and the associated emissions to convey, treat, and distribute the water; it also reduces emissions from wastewater treatment. Presented in the 2017 Update to the Scoping Plan, Appendix H.</p>		<p>irrigation, 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>
<p>Implement the Short-Lived Climate Pollutant Strategy by 2030:</p> <ul style="list-style-type: none"> • 40-percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. • 50-percent reduction in black carbon emissions below 2013 levels. <p>Presented in the 2017 Update to the Scoping Plan, Table 17.</p>	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p>No Conflict. 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.^b SB 1383 requires various agencies including CARB, California Department of Food and Agriculture (CDFA), the State Water Resources Board (SWRCB) to be responsible for adopting regulations to reduce GHG emissions. These regulations would be applicable to the Project. Therefore, the Project would comply with the CARB SLCP Reduction Strategy which limits the use of hydrofluorocarbons for refrigeration uses.</p>
<p>By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383. Presented in the 2017 Update to the Scoping Plan, Table 17.</p>	<p>CARB, CalRecycle, CDFA, SWRCB, Local air districts</p>	<p>No Conflict. 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. The SB 1383 regulations go into effect January 1, 2022.^c</p> <p>The Project would not conflict with AB 341, which requires not less than 75 percent of solid waste generated be source reduced through recycling, composting or diversion. Solid waste generated by the Project will be handled by the City of Los Angeles Sanitation Department which currently complies with AB 341. 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. This reduction in solid waste generation was not reflected in CalEEMod default assumptions and was conservatively not included in the</p>

Table IV.E-7 (Continued)
Consistency Analysis—2008 Climate Change Scoping Plan and Subsequent Updates

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		calculation of Project GHG emissions.
<hr/> <p><i>CalRecycle = California Department of Resources Recycling and Recovery</i> <i>CalSTA = California State Transportation Agency</i> <i>Caltrans = California Department of Transportation</i> <i>CARB = California Air Resources Board</i> <i>CDFG = California Department of Food and Agriculture</i> <i>CTC = California Transportation Commission</i> <i>DOF = California Department of Finance</i> <i>GoBiz = Governor’s Office of Business and Economic Development</i> <i>SCAG = Southern California Association of Governments</i> <i>SGC = Strategic Growth Council</i> <i>SWRCB = State Water Resources Control Board</i></p> <p>^a CEC, Adoption Hearing, 2019 Building Energy Efficiency Standards. ^b CARB, Reducing Short-Lived Climate Pollutants in California, ww2.arb.ca.gov/our-work/programs/slcp, accessed November 11, 2020. ^c CalRecycle, Short-Lived Climate Pollutants (SLCP): Organic Waste Methane Emissions Reductions, www.calrecycle.ca.gov/climate/slcp/, accessed December 4, 2020.</p> <p>Source: Eyestone Environmental, 2021.</p>		

based on land use planning and transportation options. To accomplish this goal, the 2020–2045 RTP/SCS identifies various strategies to reduce per capita VMT. The 2020–2045 RTP/SCS is expected to help SCAG reach its GHG reduction goals, as identified by CARB, with reductions in per capita passenger vehicle GHG emissions for specified target years.

In addition to demonstrating the region’s ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the 2020–2045 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 2020–2045 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 2020–2045 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.¹⁰² These strategies and policies are addressed below. Also, as explained immediately below, the Project is consistent with applicable growth forecasts.

Consistency with Integrated Growth Forecast

The 2020–2045 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.

Development of the Project would result in approximately 632 new residents. According to the 2020–2045 RTP/SCS, the population forecast for the City of Los Angeles Subregion in 2020 is approximately 4,049,317 persons.¹⁰³ In 2025, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 4,193,714 persons.¹⁰⁴ Thus, the Project’s net increase of approximately 632 new residents would constitute approximately 0.44 percent of the population growth forecasted between 2020 and 2025. The Project would result in approximately 270 residential households. According to the 2020–2045 RTP/SCS, the housing forecast for the City of Los Angeles Subregion in 2020 is approximately 1,425,759 households. In 2025, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,499,207 households. Thus, the Project’s net increase

¹⁰² SCAG, *Draft Program EIR for the 2020–2045 RTP/SC, Section 3.8, Greenhouses, page 3.8-61, December 2019.*

¹⁰³ *Based on a linear interpolation of 2020–2045 data.*

¹⁰⁴ *Based on a linear interpolation of 2020–2045 data.*

of approximately 270 residential households would constitute approximately 0.37 percent of the housing growth forecasted between 2020 and 2025 by the 2020–2045 RTP/SCS. The Project would result in approximately 43 net new employment positions on the Project Site based on employee generation rates published by LADOT and the Department of City Planning. According to the 2020–2045 RTP/SCS, the employment forecast for the City of Los Angeles Subregion in 2020 is approximately 1,887,969 employees.¹⁰⁵ In 2025, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have approximately 1,937,555 employees.¹⁰⁶ Thus, the Project's net increase of approximately 43 employees would constitute approximately 0.09 percent of the employment growth forecasted between 2020 and 2025. Refer to Section IV.F, Land Use and Planning, of this Draft EIR, for additional information regarding consistency with the 2020–2045 RTP/SCS.

Consistency with VMT Reduction Strategies and Policies

As discussed above, the City is basing its determination of the significance of the Project's GHG emissions solely in relation to the Project not being in conflict with, and, therefore, being consistent with State, regional, and local regulatory schemes and policies adopted to reduce GHG emissions. As shown in Appendix B of this Draft EIR, the Project design includes characteristics that would reduce trips and VMT as compared to the Project without implementation of VMT reducing measures within the Air Basin as measured by CalEEMod. These relative reductions in vehicle trips and VMT from the Project without implementation of such VMT reducing measures help quantify the GHG emissions reductions achieved by locating the Project in an infill, HQTAs area that promotes alternative modes of transportation.

The Project would be designed and constructed to incorporate features to support and promote environmental sustainability. The Project represents an infill development within an existing urbanized area that would introduce new residential, retail, and restaurant uses within a HQTAs. The Project Site is located in a transit-rich neighborhood with bus stops along Sunset Boulevard and the Metro B Line Hollywood/Vine Station within 1,000 feet of the Project Site.

The Project would also provide up to 320 vehicle parking spaces in compliance with the requirements of the LAMC. Within the immediate vicinity of the Project Site, bicycle routes with shared lane marking (referred to as "sharrows") are provided along Selma Avenue. Additional bicycle lanes within 0.25 mile of the Project Site are provided along Wilcox Avenue, Vine Street, and Argyle Avenue, north of Selma Avenue. In addition, with

¹⁰⁵ Based on a linear interpolation of 2020–2045 data.

¹⁰⁶ Based on a linear interpolation of 2020–2045 data.

the multitude of commercial businesses, employment, and cultural centers adjacent to residential neighborhoods, the walkability score given to the Project Site is 98 points out of 100.¹⁰⁷ Also, as outlined in the Transportation Assessment, the sidewalks serving as routes to the Project Site provide proper connectivity and sufficient widths with tactile warning strips for Americans with Disabilities (ADA) accessibility for a safe pedestrian environment. Adjacent to the Project Site, 10-foot-wide sidewalks are provided along Selma Avenue, and 12-foot-wide sidewalks are provided along Ivar Avenue. These features would further reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation.

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.¹⁰⁸ The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix I, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 32-percent reduction in overall VMT and resultant GHG emissions in comparison to a project without VMT reducing characteristics (e.g., availability of transit).

The Project would also be consistent with the following key GHG reduction strategies in SCAG's 2020–2045 RTP/SCS, which are based on changing the region's land use and travel patterns:¹⁰⁹

- New housing and job growth focused in HQTAs;

¹⁰⁷ *WalkScore.com rates the Project Site with a score of 98 of 100 possible points (scores accessed on May 20, 2020, for 1520 Cahuenga Boulevard). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.*

¹⁰⁸ *U.S. EPA, Mixed-Use Trip Generation Model, www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed January 27, 2021.*

¹⁰⁹ *SCAG 2020–2045 RTP/SCS, Table 5.1, Connect SoCal Performance Measures and Results.*

- Limit total acreage of greenfield or otherwise rural land uses converted to urban use; and
- Reduce VMT per capita.

As discussed above, the Project represents an infill development within an existing urbanized area that would introduce new residential, retail, and restaurant uses, within an HQTAs which is well served by public transportation. As shown in Appendix B, the Project results in a 32-percent reduction in overall VMT in comparison to a project without VMT reducing characteristics (e.g., availability of transit) which would reduce VMT per capita.

The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the LAMC. The increase in bicycle parking spaces provided on-site would further reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation. Project design would also provide pedestrian access that minimizes barriers and links the Project Site with existing or planned external streets to encourage people to walk instead of drive. These and other measures would further promote a reduction in VMT and subsequent reduction in GHG emissions, which would not be in conflict and, therefore, would be consistent with the goals of SCAG's 2020–2045 RTP/SCS.

Increased Use of Alternative Fueled Vehicles Policy Initiative

The second goal of the 2020–2045 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 2020–2045 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 30 percent of the total LAMC-required parking spaces provided to be capable of supporting future EVSE and at least 10 percent of the total LAMC-required parking spaces supplied with EV charging stations as dictated by City requirements.

Energy Efficiency Strategies and Policies

The third important goal within the 2020–2045 RTP/SCS for individual developments, such as the Project, involves improving energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. The 2020–2045 RTP/SCS goal is to actively encourage and create incentives for energy efficiency, where possible. As discussed in Section II, Project Description, of the Draft EIR, the Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen. These standards would reduce energy and water usage and waste and, thereby, reduce associated greenhouse gas emissions and help minimize the impact on natural resources

and infrastructure. The sustainability features to be incorporated into the Project would include, but not be limited to WaterSense-labeled plumbing fixtures and weather-based controller and drip irrigation systems to promote a reduction of indoor and outdoor water use; Energy Star-labeled appliances; and water-efficient landscape design. In addition, Project Design Feature GHG-PDF-1 would require the design of the new buildings to incorporate features to further reduce energy usage. Furthermore, the Project would be subject to the 2019 Title 24 Standards which represent “challenging but achievable design and construction practices” that represent “a major step towards meeting the Zero Net Energy (ZNE) goal.” Single-family homes built with the 2019 standards including rooftop solar electricity generation will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings built with the 2019 standards will use about 30 percent less energy due mainly to lighting upgrades.¹¹⁰ In addition, Project Design Feature GHG-PDF-1 would require the design of the new buildings to incorporate features to further reduce energy usage by improving upon the Title 24, Part 6, California Energy Code baseline standard requirements by 10 percent for energy efficiency (based on the 2019 Building Energy Efficiency Standards requirements).

Land Use Assumptions

At the regional level, the 2020–2045 RTP/SCS is a plan adopted for the purpose of reducing GHGs. In order to assess the Project’s consistency with the 2020–2045 RTP/SCS, this Draft EIR also analyzes the Project’s land use characteristics for consistency with those utilized by SCAG in its SCS. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as the 2020–2045 RTP/SCS, 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 set forth in the 2020–2045 RTP/SCS is discussed in Section IV.F, Land Use and Planning, of the Draft EIR and detailed in Table 5 of Appendix F of the Draft EIR. As shown in Table 5 of Appendix F, the Project is consistent with the land use goals and principles set forth in the 2020–2045 RTP/SCS that pertain to GHG emissions.

In sum, the Project is the type of land use development that is encouraged by the 2020–2045 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

¹¹⁰ CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.

policies.¹¹¹ 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 2020–2045 RTP/SCS. As such, impacts related to consistency with the 2020–2045 RTP/SCS would be less than significant.

(iii) City of Los Angeles Sustainable City pLAN/L.A.'s Green New Deal

As discussed above, the L.A.'s Green New Deal, a mayoral initiative, includes both short-term and long-term aspirations through the year 2050 in various topic areas, including: water, renewable energy, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. While not a plan adopted solely to reduce GHG emissions, within L.A.'s Green New Deal (Sustainable City pLAN 2019), climate mitigation is one of eight explicit benefits that help define its strategies and goals.

The Sustainable City pLAN/L.A.'s Green New Deal provides information as to what the City will do with buildings and infrastructure in its control, and provides specific targets related to housing and development as well as mobility and transit, including the reduction of vehicle miles traveled per capita by 13 percent by 2025, at least 39 percent VMT per capita reduction by 2035. and increasing trips made by walking, biking or transit by at least 35 percent by 2025. As noted above, the Sustainable City pLAN was updated in April 2019 and renamed as L.A.'s Green New Deal, which has established targets, such as 100-percent renewable energy by 2045, diversion of 100 percent of waste by 2050, and recycling 100 percent of wastewater by 2035. L.A.'s Green New Deal mainly targets GHG emissions related to City-owned buildings and operations (e.g., City operated utilities) and do not directly apply to new private development, however discussion is provided below on whether the project conflicts or will hamper the City in achieving the goals of the Green New Deal and whether the project will benefit from the City achieving these objectives. Table IV.E-8 on page IV.E-65 provides a discussion of whether Project would conflict with or hinder the City's efforts in reaching the goals in the Green New Deal. As discussed therein, the Project would include increasing renewable energy usage, reduction of per capita water usage, promotion of walking and biking to work, and various recycling and trash diversion goals and would not conflict with or hinder the City's efforts in reaching the goals in L.A.'s Green New Deal.

¹¹¹ As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

**Table IV.E-8
Consistency with Applicable GHG Emissions Goals and Actions of the City’s Green New Deal**

Action	Description	Consistency Analysis
Focus Area: Local Water		
Reduce potable water use per capita by 22.5% by 2025; and 25% by 2035; and maintain or reduce 2035 per capita water use through 2050	The City would build upon the success of Save the Drop program and develop additional water conservation campaigns. In addition, the City would continue to benchmark customer use and improve data gathering to identify effective programs	No Conflict. While this action primarily applies to the City and LADWP, the Project would incorporate water conservation features to reduce water use. Water usage rates were calculated consistent with the requirements under City Ordinance No. 184,248, the 2013 California Plumbing Code, 2014 Los Angeles Plumbing Code, 2017 Los Angeles Green Building Code, and 2019 California Green Building Code (CALGreen), and reflects approximately a 20-percent reduction in water usage as compared to the base demand. Project-related GHG emissions from water related sources also include implementation of Project Design Feature WAT-PDF-1 included in Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR. Therefore, the Project would not conflict with this goal of the City’s Green New Deal.
Focus Area: Clean and Healthy Buildings		
All new buildings will be net zero carbon by 2030; and 100% of buildings will be net zero carbon by 2050	The City would perform a complete building electrification study and develop supporting programs. Financing would be expanded and improved to provide electrification existing energy efficiency and solar programs.	Not Applicable. While it is the City’s responsibility to adopt plans and regulations that support this action, the Project would be subject to the 2019 Title 24 Building Standards which represent “challenging but achievable design and construction practices” that represent “a major step towards meeting the Zero Net Energy (ZNE) goal. ^a . Furthermore, the Project would be designed and operated to meet or exceed the applicable requirements of CALGreen (Title 24, Part 11) and the City of Los Angeles Green Building Code
Reduce building energy use per sf for all building types 22% by 2025; 34% by 2035; and 44% by 2050	The City would increase awareness of incentives and smart building energy management systems. An energy consumption report will be prepared to assess the energy-water nexus.	No Conflict. This action applies to the City. However, the Project would be designed and operated to meet or exceed the applicable requirements of Title 24 Building Standards, including CALGreen, as well as the City of Los Angeles Green Building Code. The Project applicant would also consider City recommended incentives and smart building energy management systems

Table IV.E-8 (Continued)
Consistency with Applicable GHG Emissions Goals and Actions of the City’s Green New Deal

Action	Description	Consistency Analysis
		during the design phase of the Project. Therefore, the Project would not conflict with the City in achieving this goal of the City’s Green New Deal.
Focus Area: Housing and Development		
Ensure 57% of new housing units are built within 1500 ft of transit by 2025; and 75% by 2035	<p>The City would develop regulatory tools and strategies to encourage transit ridership and focus growth in housing near the North Hollywood Station, Van Nuys Station, Sepulveda Station, Reseda Station, and Sherman Way Station. New stations would also be added to the Purple Line from Downtown L.A. to UCLA.</p> <p>This action reduces vehicle emissions by facilitating access to transit which can reduce single occupancy vehicle trips and help alleviate traffic congestion, and most importantly, reducing associated GHG emissions.</p>	No Conflict. This action applies to the City. However, the Project Site is located in a HQTAs that is well served by public transportation, including rail as well as rapid and local bus service. Therefore, the Project would not conflict with this goal of the City’s Green New Deal.
Focus Area: Mobility and Public Transit		
Reduce VMT per capita by at least 13% by 2025; 39% by 2035; and 45% by 2050	The City would update the Transportation Demand Management (TDM) ordinance and develop first/last mile infrastructure improvements around transit stations. TDM strategies would also be implemented consistent with the West Side Mobility Plan to ease congestion.	No Conflict. This action applies to the City. However, the Project would be located near mass transit stations to reduce vehicle trips. The Project would also promote a pedestrian-friendly community by placing residential and neighborhood-serving commercial uses within walking distance of existing employment, residential, cultural, and institutional uses. The Project Site is located in a HQTAs as designated by the 2020–2045 RTP/SCS. The Project would also provide bicycle parking spaces in accordance with LAMC requirements for Project residents, employees, and visitors. As discussed above, the Project results in a 32-percent reduction in overall VMT in comparison to a project without VMT reducing characteristics (e.g., availability of transit), which would reduce VMT per capita to support the State’s emissions goals (i.e., SB 375 goal). Therefore, the Project would not conflict with this goal of the City’s Green New Deal.

Table IV.E-8 (Continued)
Consistency with Applicable GHG Emissions Goals and Actions of the City’s Green New Deal

Action	Description	Consistency Analysis
Focus Area: Zero Emission Vehicles		
Increase the percentage of electric and zero emission vehicles in the city to 25% by 2025; 80% by 2035; and 100% by 2050	The City would increase the electric vehicle ownership by providing rebates for used EVs and chargers, as well as promote trade-in events for electric vehicles. The City would also increase the number of EV charging stations by pursuing public-private partnerships in developing charging stations, streamlining permitting processes for EV charger installations, and updating building codes to simplify EV charging requirements.	No Conflict. This action applies to the City. However, the Project would support this policy since the Project would provide electric vehicle charging stations and electric vehicle supply wiring consistent with City requirements.
<hr/> <p>^a CEC, 2019 Building Energy Efficiency Standards, Fact Sheet. Source: Eyestone Environmental, 2022.</p>		

Although the Green New Deal is not an adopted plan or directly applicable to private development projects, the Project would generally not conflict with or hinder these aspirations because it is an infill development within an existing urbanized area that would introduce a combination of new residential, retail, and restaurant uses, within an HQT. The Project Site is well served by public transportation, with multiple local and regional bus lines provided by Metro and LADOT. Specifically, the Project Site is located in a transit-rich neighborhood with bus stops along Sunset Boulevard and the Metro B Line Hollywood/Vine Station within 1,000 feet of the Project Site. Furthermore, the Project would comply with CALGreen, implement various project design features to reduce energy usage, including Project Design Feature GHG-PDF-1 and Project Design Feature 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 targets included in the Sustainable City pLAN/L.A.’s Green New Deal with regard to energy-efficient buildings and waste and landfills. The Project would also provide secure short- and long-term bicycle storage areas for Project residents, employees, and visitors. **Therefore, the Project would not be in conflict with and would, therefore, be consistent with the goals of Sustainable City pLAN/L.A.’s Green New Deal.**

(iv) Post-2030 Analysis

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.¹¹² 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 CARB to ensure that Statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. These targets would build upon those originally established under AB 32 which required reducing statewide GHG emissions to 1990 levels by 2020. As discussed above, 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, increasing the ability to use electric vehicles, improving energy efficiency, and reducing water usage.

The emissions modeling in the 2017 Update to the Scoping Plan 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 to the Scoping Plan 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 to the Scoping Plan, additional measures to achieve the 2030 targets and beyond are outside of the City or the Project's control.

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

¹¹² *Energy and Environmental Economics (E3), "Deep Decarbonization in a High Renewables Future, Updated Results from the California PATHWAYS Model" (Amber Mahone, June 2018). 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 long-term 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. The model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors.*

“measures needed to meet the 2050 are too far in the future to define in detail.”¹¹³ In the First Update to the Scoping Plan, 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.”¹¹⁴

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 to decline as the regulatory initiatives identified by CARB in the Climate Change Scoping Plan are implemented, and other technological innovations occur. Such regulatory measures which will further reduce GHG emissions include the RPS under SB 100 which requires 100-percent renewable energy by 2045. The Project’s total emissions at build-out presented in Table IV.E-11 on page IV.E-75 in the analysis below, represents the emissions inventory for the Project. That inventory takes into account existing regulations, and regulations that would apply to the Project at its build out year. Please refer to Table IV.E-6 and Table IV.E-7 on pages IV.E-52 and IV.E-54 for applicable regulatory measures that would serve to reduce GHG impacts from the Project. As such, the Project is consistent with the Executive Order’s horizon-year (2050) goal.

The Project is the type of land use development that is encouraged by the 2020–2045 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. As discussed above, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 32-percent reduction in overall VMT and resultant GHG emissions compared to the baseline ITE trip generation rates. This reduction in VMT would further support the SCAG and CARB goals of reducing GHG emissions by 19 percent per capita from passenger vehicles by 2035 in the 2020–2045 RTP/SCS. By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with State climate targets for 2030 and beyond.

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.

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

¹¹⁴ CARB, *2017 Scoping Plan Update*, November 2017, p. 18.

(v) Carbon Neutrality

As discussed above, Executive Order B-55-18 establishes a new Statewide goal to achieve carbon neutrality no later than 2045 and achieve and maintain net negative emissions thereafter. Based on this executive order, CARB would work with relevant State agencies to develop a framework for implementation and accounting that tracks progress towards this goal, as well as ensuring future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

Also discussed above, CARB has released a study evaluating three scenarios that achieve Carbon Neutrality in California by 2045. The scenarios analyzed to achieve carbon neutrality include a High Carbon Dioxide Removal (CDR) scenario, Zero Carbon Energy scenario, and a Balanced scenario. Under each of these scenarios, CARB proposed reduction strategies for various sectors that contribute GHG emissions throughout the State. Table IV.E-9 on page IV.E-71 provides a summary of key emission reduction strategies required to achieve the 2045 GHG emissions target of Carbon Neutrality. In addition, Table IV.E-9 demonstrates how the Project would not conflict with and, therefore, be consistent with these measures.

Although specific details are not yet available for the GHG reduction measures discussed above, implementation of these measures would require regulations to be enforced by the State. The Project would be required to comply with regulations in support of the goal of Carbon Neutrality by 2045 and would, therefore, not be in conflict with and, thus, would be consistent with the State's achievement of the goals of Executive Order B-55-18.

(b) Project Emissions

The CEQA Guidelines ask whether the Project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. This Draft EIR estimates the GHG emissions associated with the Project for informational purposes only. These Project GHG emissions are not evaluated against a numeric or quantified threshold of significance.

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

- Construction: emissions associated with demolition of the existing buildings and surface parking areas, shoring, excavation, grading, and construction-related equipment and vehicular activity;
- Area source: emissions associated with landscaping equipment and consumer products;

**Table IV.E-9
Project Consistency with 2045 Carbon Neutrality Goals**

Sector	Description	Consistency Analysis
Sector: Low Carbon Fuels	The State would use advanced biofuels for ground transportation, renewable aviation fuel and biomethane for electricity generation. Hydrogen may also be blended into pipeline gas demand as well as hydrogen for fuel cell transportation.	No Conflict. This action primarily applies to the transportation fuel providers. However, the Project would source transportation fuel from these providers that would comply with these reduction measures. As such, the Project would not conflict with and, thus, would be consistent with this goal.
Sector: Buildings	The State would require 100% of sales of electric appliances by 2030 through 2040.	No Conflict. Any purchases of appliances after 2030 would be consistent with State requirements. The Project would also be compliant with any applicable City policies that address the conversion from gas appliances to electric appliances. As such, the Project would not conflict with and, thus, would be consistent with this goal.
Sector: Transportation	The State would require 100% Battery Electric Vehicle (BEV) sales for Light Duty Vehicles (LDV) and Medium Duty Vehicles (MDV) as early as 2030. Sales of Heavy Duty Vehicles (HDV) would achieve at least 45% BEV or CNG as early as 2035. At least 50% of rail within the State would be electrified and 50% of in-state aviation be electrified.	No Conflict. Residents and visitors of the Project purchasing vehicles within the State would comply with BEV or compressed natural gas (CNG) vehicle sales requirements once the Statewide requirements go into effect. In addition, the Project would support this goal since the Project would provide electric vehicle charging stations and electric vehicle supply wiring consistent with City requirements. The Project Site is also located in a transit-rich neighborhood with bus stops along Sunset Boulevard and the Metro B Line Hollywood/Vine Station within 1,000 feet of the Project Site. Therefore, the Project would not conflict with requirements on sales of BEV or CNG) powered vehicles. As such, the Project would not conflict with and, thus, would be consistent with this goal.
Sector: Industry and Agriculture	The State would require industry to be up to 53 percent electrified and up to 19 percent of energy to be met with hydrogen. Cement, glass, oil and gas industries would be required to achieve carbon capture of at least 14 MMT. Agricultural energy emissions would be reduced by at least 80%. Oil and gas extraction and petroleum refining energy demand would be reduced by at least 90%	Not Applicable. The Project would not include industrial or agricultural uses. As such, the Project would not conflict with and, thus, would be consistent with this goal.
Sector: Electricity	Electricity generation within the state is fueled with natural gas, biomethane or hydrogen. At least 95 percent of electricity generation would be zero carbon.	No Conflict. This action primarily applies to the local power utility company (LADWP). However, the Project would source all electricity from the LADWP that would comply with these reduction measures. As such, the

Table IV.E-9 (Continued)
Project Consistency with 2045 Carbon Neutrality Goals

Sector	Description	Consistency Analysis
		Project would not conflict with and thus, would be consistent with this goal.
High GWP and Non-Combustion	Landfill and wastewater methane would be reduced by 23%. Pipeline fugitive emissions would be reduced by 72%, agricultural methane would be reduced by 41% and refrigerants would be reduced by 75%. Percent reductions are relative to Year 2020.	No Conflict. This action applies to the local wastewater and solid waste utility (City of LA Sanitation Department). However, the Project would discharge all wastewater to the LA Sanitation Department and generate solid waste within the City of LA that would comply with these reduction measures. As such, the Project would not conflict with and thus, would be consistent with this goal.
Sector: Carbon Dioxide Removal	At least 33 million metric tons/year of carbon dioxide removal needed in 2045.	Not Applicable. This action applies to the State. However, the Project would comply with this policy as required by current or future regulations. As such, the Project would not conflict with and thus, would be consistent with this goal.
<p><i>Source: Eyestone Environmental, 2022. California Air Resources Board. Achieving Carbon Neutrality in California. October 2020</i></p>		

- Energy source (building operations): emissions associated with space heating and cooling, water heating, energy consumption, and lighting;
- Mobile source: emissions associated with vehicles accessing the Project Site;
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators);
- Solid Waste: emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
- Water/Wastewater: emissions associated with energy used to pump, convey, deliver, and treat water.

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

(i) Construction

Construction of the Project would commence with demolition of the existing structures and surface parking. This phase would be followed by grading and excavation for the subterranean parking. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. The construction schedule assumes that construction would take place within a 26-month duration with completion in 2024 and full buildout of the Project by 2025. It is estimated that approximately 69,333 cubic yards of soil export would be hauled from the Project Site. The emission of GHGs associated with construction of the Project were calculated for each year of construction activity. A summary of GHG emissions for each year of construction is presented in Table IV.E-10 on page IV.E-74.

As presented in Table IV.E-10, construction of the Project is estimated to generate a total of 3,548 MTCO_{2e}. As recommended by 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.¹¹⁵ This results in annual Project construction emissions of 118 MTCO_{2e}. 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 were calculated using the CalEEMod emissions inventory model, which includes landscape maintenance equipment and consumer products. The Project Site would include natural-gas outdoor fire pits in amenity areas, but no fireplaces within residential units, which would also contribute to area source emissions. As shown in Table IV.E-11 on page IV.E-75, the Project, at full buildout, is expected to result in a net increase of 16 MTCO_{2e} per year from area sources. The Project's area source GHG emissions takes into account GHG-PDF-2, which prohibits fireplaces within the residential units. Implementation of this project design feature would reduce the Project's area source GHG emissions by 49 MTCO_{2e} per year. Please refer to Appendix B to this Draft EIR for the supporting calculations that reflect the emission reduction measures.

¹¹⁵ SCAQMD Governing Board Agenda Item 31, December 5, 2008.

**Table IV.E-10
Construction-Related Emissions
(MTCO₂e)**

Construction Year	MTCO ₂ e ^a
2022	2,026
2023	1,189
2024	333
Total:	3,548
Amortized Over 30 Years	118
<p>^a CO₂e was calculated using CalEEMod and the results are provided in Section 2.0 of the Construction CalEEMod output file within Appendix B of this Draft EIR.</p> <p>Source: Eyestone Environmental, 2022.</p>	

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 CO₂ 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.

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; as LADWP projections are not calculated for every year, straight line interpolation was performed to estimate the LADWP carbon intensity factor for the Project buildout year based on Year 2020 and 2035 data.¹¹⁶

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 in plug-in appliances. CalEEMod calculates energy use from systems covered by

¹¹⁶ LADWP, 2016 Power Integrated Resource Plan.

**Table IV.E-11
Annual Project GHG Emissions Summary (Buildout Year)^a
(metric tons of carbon dioxide equivalent [MTCO₂e])**

Scope	Project without Project Features	Project with Project Features	Reduction from Project Features
Area ^b	65	16	(49)
Energy ^c	770	734	(20)
Mobile ^d	2,762	1,866	(896)
EV Chargers ^e	(95)	(95)	0
Stationary ^f	38	38	0
Solid Waste ^g	30	30	0
Water/Wastewater ^h	112	112	0
Construction	118	118	0
Total Emissions	3,800	2,819	(981)

Numbers may not add up exactly due to rounding.

^a CO₂e was calculated using CalEEMod and the results are provided in Section 2.0 of the Operation CalEEMod output file within Appendix B of this Draft EIR. Totals may not add up due to rounding.

^b Area source emissions are from landscape equipment. Emissions were calculated consistent with requirements of GHG-PDF-2.

^c 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 and do not take into account decreasing carbon intensity in subsequent years required by SB 100 (RPS). However, it is recognized that the RPS would require utilities to supply 100% renewable energy by 2045.

^d Emissions were calculated with CalEEMod which includes EMFAC2017 emission factors. EMFAC2014 does not take account for further reductions in GHG emission as the result of implementation of LCFS amendments. Mobile source emissions also do not account for increasing fuel economy standards for future years. Consistent with the Transportation Assessment, existing mobile source emissions were conservatively considered to be part of the Project's operational emissions.

^e Emissions were calculated consistent with the City requirements.

^f Stationary source emissions are from an on-site emergency generator.

^g Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.

^h Water/Wastewater emissions are calculated based on CalEEMod default water consumption rates. The CalEEMod estimate of water consumption is considered conservative compared to more current water demand rates used by LADWP, which are reflected in Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR.

Source: Eyestone Environmental, 2021.

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 electronics, appliances, plug-ins, 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.¹¹⁷ The data are specific for climate zones; therefore, Zone 12 was selected for the Project Site based on the ZIP Code tool. Since these studies are based on older buildings, CalEEMod provides adjustments to account for more stringent requirements under 2019 Title 24 building codes, as well as previous iterations of Title 24 building codes promulgated subsequent to preparation of the 2008 Climate Change Scoping Plan. Since the 2008 Scoping Plan, Title 24 was updated in 2010 and 2013 to incorporate increasing energy efficiency standards. The 2013 Title 24 requirements would improve energy efficiency standards by 25 percent above the 2007 Title 24 requirements.¹¹⁸ As discussed above, the Project would be subject to the 2019 Title 24 standards which represent “challenging but achievable design and construction practices” that represent “a major step towards meeting the ZNE goal.”¹¹⁹

The Project would implement a number of project design features that would reduce Project energy consumption, including Project Design Feature GHG-PDF-1, which would require the Project to incorporate features to further reduce overall energy usage beyond code requirements. This would include use of light-emitting diode (LED) lighting or other energy-efficient lighting technologies, such as occupancy sensor or daylight harvesting and dimming controls. Project Design Feature GHG-PDF-1 would also require the design of the new buildings to incorporate features to further reduce energy usage by improving upon the Title 24, Part 6, California Energy Code baseline standard requirements by 10 percent for energy efficiency (based on the 2019 Building Energy Efficiency Standards requirements). This analysis conservatively did not account for energy efficiency improvements beyond 2019 Building Energy Efficiency Standards. While the analysis accounts for current energy efficiency regulations, future and proposed regulations have not been taken into account. Such regulations include future iterations of Title 24, which will further increase energy efficiency and ZNE requirements. In addition, the Project would be consistent with and not conflict with the goals of achieving Carbon Neutrality by 2045, as discussed above.

As shown in Table IV.E-11 on page IV.E-75, Project GHG emissions from electricity and natural gas usage would result in a total of 734 MTCO_{2e} per year. Implementation of Project Design Feature GHG-PDF-1 results in a reduction of 36 MTCO_{2e} per year from energy source emissions.

¹¹⁷ CEC, *Commercial End-Use Survey, March 2006, and California Residential Appliance Saturation Survey, October 2010.*

¹¹⁸ *California Lighting Technology Center, University of California, Davis, What's New in the 2013 Code?, March 18, 2014.*

¹¹⁹ CEC, *2019 Building Energy Efficiency Standards, Fact Sheet.*

Mobile Source Emissions

Mobile-source emissions were calculated using the SCAQMD-recommended CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and VMT.

Mobile source operational GHG emissions were calculated using CalEEMod based on the Project trip-generation estimates provided in the Transportation Assessment prepared for the Project and included in Appendix I of this Draft EIR.¹²⁰ As discussed in Section IV.I, Transportation, of this Draft EIR, the LADOT VMT Calculator was used to calculate Project VMT and trip estimates based on the amount of building area for the residential, commercial retail, and restaurant uses.

As discussed above, the Project design also includes characteristics that would reduce trips and VMT as compared to a project without VMT reducing measures within the Air Basin. The Project represents an infill development within an existing urbanized area that would introduce new residential, retail, and restaurant uses, within an HQTAs. The Project Site is well served by public transportation, with multiple local and regional bus lines provided by Metro and LADOT. Specifically, the Project Site is located in a transit-rich neighborhood with bus stops along Sunset Boulevard and the Metro B (formerly Red) Line Hollywood/Vine Station within 1,000 feet of the Project Site. As shown in Appendix I, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 32-percent reduction in overall VMT and resultant GHG emissions.

As shown in Table IV.E-11 on page IV.E-75, Project GHG emissions from mobile sources would result in 1,866 MTCO_{2e} per year which accounts for a 896 MTCO_{2e} per year reduction associated with above discussed USEPA MXD VMT reduction features applicable to the Project (e.g., accessibility to mass transit and proximity to other commercial and entertainment uses). Please refer to Appendix B of this Draft EIR for the supporting calculations that reflect the emission reduction measures.

Stationary Source Emissions

Emissions related to stationary sources were calculated using the CalEEMod emissions inventory model. It is anticipated that the Project would include an emergency generator on-site. As shown in Table IV.E-11, the Project is expected to result in 38 MTCO_{2e} per year from stationary sources.

¹²⁰ Gibson Transportation Consulting, Inc., *Transportation Assessment for the Artisan Hollywood Project, December 2020. Included in Appendix I of this Draft EIR.*

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.E-11 on page IV.E-75, Project GHG emissions from solid waste generation would result in a total of 30 MTCO_{2e} per year which accounts for a 76-percent recycling/diversion rate.¹²¹

Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water; these include: (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 is used as the wastewater is treated and 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 by the applicable energy intensity factor¹²² 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, 2016 California Plumbing Code, 2019 CALGreen, 2017 Los Angeles Plumbing Code, and 2020 Los Angeles Green Building Code, and reflect an approximately 20-percent reduction as compared to the base demand requirements. Base water use demand is determined by the maximum allowable water use per plumbing fixture and fitting as required by the California Building Standards Code.

As shown in Table IV.E-11, Project GHG emissions from water/wastewater usage would result in an increase of 112 MTCO_{2e} per year, which accounts for a 20-percent reduction in water/wastewater emissions with implementation of Project Design Feature

¹²¹ *City of Los Angeles, L.A.'s Green New Deal, Sustainable City Plan, 2019; City of Los Angeles Bureau of Sanitation, Zero Waste Progress Report, 2013.*

¹²² *The intensity factor reflects the average pounds of CO_{2e} per megawatt generated by a utility company.*

WAT-PDF-1 provided in Section IV.K.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR. Please refer to Appendix B of this Draft EIR for the supporting calculations that reflect the emission reduction measures.

(iii) Combined Construction and Operational Impacts

As shown in Table IV.E-11 on page IV.E-75, 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 for the Project in 2025 would equal 118 MTCO_{2e} per year (amortized over 30 years) during construction and 2,701 MTCO_{2e} per year during operation of the Project with a combined total of approximately 2,819 MTCO_{2e} per year.

As discussed above, the Project's GHG emissions inventory was presented for informational purposes only. The emissions inventory and analysis demonstrate that the Project incorporates GHG-reducing measures.

(c) Conclusion

In summary, the Project's location, land use characteristics, and design render it consistent with statewide and regional climate change mandates, plans, policies, and recommendations. More specifically, 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 CARB's *2008 Climate Change Scoping Plan* and subsequent updates, SCAG's 2020–2045 RTP/SCS, and the City's Green New Deal. 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 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.**

(2) Mitigation Measures

Project-level impacts related to GHG emissions would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to GHG emissions were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.

e. Cumulative Impacts

(1) Impact Analysis

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, which includes consideration of the 46 related projects identified in Chapter III, Environmental Setting, of this Draft EIR. Table IV.E-11 on page IV.E-75 illustrates that implementation of the Project's regulatory requirements and project design features, including State mandates, would contribute to GHG reductions. These reductions support State goals for GHG emissions reduction.

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 SCAG's 2020–2045 RTP/SCS' regulatory requirements to reduce regional GHG emissions from the land use and transportation sectors by 2035. Furthermore, the Project would generally comply with the aspirations of the City's Green New Deal, 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 would be less than significant.**

(2) Mitigation Measures

Cumulative impacts related to GHG emissions would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts related to GHG emissions were determined to be less than significant without mitigation. Therefore, no mitigation measures were required, and the impact level remains less than significant.